Vertical Recommendation for Use sheets (RfUs) of the European Coordination of Notified Bodies in the field of Personal Protective Equipment (PPE)

Regulation (EU) 2016/425

Vertical Group 1	- status in	February	y 2024
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Vertical Group 2 - status in February 2024

<u>Vertical Group 3</u> - status in October 2023

Vertical Group 4 - status in February 2024

<u>Vertical Group 5</u> - status in September 2024

Vertical Group 8 - status in September 2024

Vertical Group 9 - status in April 2019

<u>Vertical Group 10</u> - status in September 2021

<u>Vertical Group 11</u> - status in September 2024

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 1 "Head protection"

of the European Coordination of Notified Bodies in the field of Personal Protective Equipment (PPE)

Regulation (EU) 2016/425

Number	Version	Reference	Keywords	Approved by	Approved by	Endorsed by
of RfU				Vertical	Horizontal	PPE Expert
PPE-R/	0.4	EN 007 4005		Group 1	Committee	Group
<u>01.001</u>	01	EN 397:1995	Industrial helmet, lateral deformation test, test	21/04/18	21/04/18	29/11/19
		(+A1) & EN 397:2012	procedure			
01.002	01	EN 812:2012	Industrial bump caps,	21/04/18	21/04/18	29/11/19
			ventilation			
01.003	01	Various	Shock absorption, falling headform, alignment, procedure	21/04/18	23/09/20	30/06/23
01.004	01	EN 1384:1996 (+A1) & EN 1384 : 2012 clauses 3.10, 5.5 & 6.8	Helmets for equestrian activities, peak, deflection	21/04/18	21/04/18	29/11/19
01.006	01	Various	Kerbstone anvil	21/04/18	21/04/18	29/11/19
01.007	01	All	Test method standards	21/04/18	21/04/18	29/11/19
01.008	01	EN 443 : 2008	Retention system effectiveness, Pre-requisites	21/04/18	21/04/18	29/11/19
01.009	01	EN 443 : 2008	Shock absorption, Resistance to penetration	21/04/18	21/04/18	29/11/19
01.011	01	EN 397:2012 + A1:2012	Chin strap anchorage	21/04/18	23/09/20	30/06/23
01.012	01	Various	Secondary impacts	21/04/18	21/04/18	29/11/19
01.013	01	EN 1078:1997 & 2012	Retention system, Fastening device	21/04/18	21/04/18	29/11/19
01.014	02	Various	Penetretion test block, radius	09/06/21	01/10/21	18/11/22
01.015	01	EN 1077:2007	Test area	21/04/18	21/04/18	29/11/19
<u>01.016</u>	01	EN 397:1995 & 2012 EN 812:1997 & 2012	Shock absorption, Resistance to penetration, impact velocity	21/04/18	21/04/18	29/11/19
01.017	01	EN 397:1995 & 2012	Very low temperature, pre- conditioning	21/04/18	21/04/18	29/11/19
01.019	01	EN 443:2008	Helmets for Fire Fighting; Flame resistance	21/04/18	21/04/18	29/11/19
01.021	01	EN 397:2012 + A1:2012	Molten metal splash, assessment	21/04/18	21/04/18	29/11/19
01.022	01	Various	Test position, Penetration testing, Molten metal testing	21/04/18	21/04/18	29/11/19
01.023	01	EN 12492:2012	Penetration testing, sample restraint	21/04/18	21/04/18	29/11/19
01.024	01	EN 397:2012 + A1:2012 and EN 12492:2012	Dual-marking	21/04/18	21/04/18	29/11/19
<u>01.025</u>	01	EN 397:2012 + A1:2012	Molten metal test, orientation	21/04/18	21/04/18	29/11/19
01.026	01	EN 397:2012 + A1:2012	Ventilation, area measurement, covers	21/04/18	21/04/18	29/11/19
01.027	01	EN 443:2008	Shock absorption, headforms	21/04/18	21/04/18	29/11/19

Number	Version	Reference	Keywords	Approved by	Approved by	Endorsed by
of RfU				Vertical	Horizontal	PPE Expert
PPE-R/				Group 1	Committee	Group
01.028	01	EN 443:2008	Retention system strength, headforms	21/04/18	21/04/18	29/11/19
01.029	01	EN 812:2012	Marking	21/04/18	21/04/18	29/11/19
01.030	01	EN 12492:2012	Ventilation	21/04/18	21/04/18	29/11/19
01.031	01	EN1384:2012	Thickness measurement, Area of protection	21/04/18	21/04/18	29/11/19
01.032	01	EN 1384:2012	Test sequence, sample restoration	21/04/18	21/04/18	29/11/19
01.033	01	EN 14052:2012 + A1:2012	Resistance to penetration, helmet test support	21/04/18	21/04/18	29/11/19
<u>01.036</u>	01	EN 13484:2012	Extent of coverage	21/04/18	21/04/18	29/11/19
01.037	01	EN 1385:2012	Coverage	21/04/18	21/04/18	29/11/19
01.038	01	EN 1385:2012	Retention system effectiveness	21/04/18	21/04/18	29/11/19
01.039	01	EN 397:2012	Helmet shell, Materials, Marking	21/04/18	21/04/18	29/11/19
01.041	01	EN 1077: 2007 / EN 1078+ A1:2012 / EN 1385: 2012	Artificial ageing, ultraviolet irradiation	21/04/18	15/09/19	14/03/22
01.042	01	Various	Lateral crushing, deformation	21/04/18	15/09/19	14/03/22
01.043	01	EN 397:2012 + A1	Visor position, Testing	21/04/18	15/09/19	14/03/22
01.045	01	EN 397:2012 + A1	Internal vertical clearance, Internal vertical distance, Air supplied respirators	24/05/18	15/09/19	14/03/22
01.046	01	EN 50365:2002	Marking durability, marking legibility, marking location	24/05/18	15/09/19	14/03/22
01.047	01	EN16471:2014 & EN16473:2014	Flame resistance, Testing	24/05/18	23/09/20	14/03/22
01.049	01		Industrial safety helmets, increased ventilation	21/04/18	23/09/20	14/03/22
01.050	01	EN 1077:2007	Helmets for Alpine Skiers and Snowboarders with integrated speakers	21/04/18	23/09/20	14/03/22
01.051	01	EN 397:2012 + A1:2012	Headband, Adjustment	21/04/18	23/09/20	30/06/23
01.052	01	EN 397:2012 + A1:2012	Lateral deformation, test plates, positioning	21/04/18	23/09/20	30/06/23
01.053	01	EN 397:2012 + A1:2012	Headband, variants	21/04/18	23/09/20	30/06/23
01.056	01	EN16471:2014 & EN16473:2014	Coverage, materials	24/05/18	23/09/20	14/03/22
01.059	01	EN 397:2012 + A1:2012	Winter liners	09/06/21	01/10/21	18/11/22
<u>01.060</u>	01	EN 16473:2014	Ventilation	24/05/18	23/09/20	30/06/23
<u>01.062</u>	01		Wind noise	19/09/19	01/10/21	18/11/22
01.063	01	EN 812:2012	Test configuration	19/09/19	01/10/21	18/11/22
01.064	01		Electric bicycles, electric scooters, electric skateboards	25/06/21	30/04/22	31/08/23
01.065	01	EN 443:2008	Visible damage	19/09/19	01/10/21	18/11/22
01.066	01	EN 397:2012 + A1:2012	Ventilation	19/09/19	01/10/21	18/11/22
<u>01.067</u>	01	EN 50365:2002	Specification	19/09/19	01/10/21	18/11/22
01.068	01	EN 50365:2002	Visual inspection, metal parts	19/09/19	01/10/21	18/11/22

Number of RfU PPE-R/	Version	Reference	Keywords	Approved by Vertical Group 1	Approved by Horizontal Committee	Endorsed by PPE Expert Group
01.069	01	EN 14052:2012 + A1:2012	Pre-conditioning, delay	19/09/19	01/10/21	18/11/22
<u>01.070</u>	01	EN 397:2012 + A1:2012	Crown area	09/06/21	01/10/21	18/11/22
01.071	01	EN 397:2012+ A1:2012	Chin-strap anchorage	09/06/21	01/10/21	18/11/22
01.072	01	EN 443:2008	Horizontal field of vision	09/06/21	30/04/22	31/08/23



PPE-R/01.00
Version 1

	RECOMMENDA	ATION FO	K USE	
Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 1			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE EN 397:20	EN: EN 397:1995 (+A1) & 012	Other:
Article:	Annex:	Clause: 6.	11.2	
Key words:				
Industrial helmet, lateral	deformation test, test procedure			
Question:				
In the case of helmets w load is not applied direct	hich include localized projections from the s ly to the projections?	hell, e.g. riv	ets, is it permissible to use "brid	ging elements" so that the
location of the loading pl	esults in the lateral deformation test of one in lates on the sides of the helmets turned out in the shell, notwithstanding any localized pro ents.	to be the rea	ason for the discrepancy. Where	eas UTAC located the
Solution:				
No.				
	nich the loading plates are located on the he The formulation of chapter 6.11.2 in EN 397			s the relevant one for the



PPE-R/01.002 Version 1

	RECOMMENDATI	IUN FU	K USE	
Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 1				21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	☑ EN/prE	N: EN 812:2012	Other:
Article:	Annex: C	Clause: 4.	7	
W I.				
Key words: Industrial bump caps, ver	ntilation			
muusmai bump caps, vei	itilation			
Question:				
	ed with 'cut-outs' that extend upwards from the pearance of a baseball cap or those designed			
Should such cut-out featu	ures be considered as holes for ventilation purp	poses?		
Solution:				
No.				



PPE-R/()1	.003
Version	1	

Number of pages: 2			Approval stage :	Approved on :
Origin : Vertical Gro	ир 1		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	21.04.2018 23.09.2020 30.06.2023
Question related to	☐ PPE Regulation ☐ PPE Guidelines	⊠ EN/prE	N: Various	Other:
Article:	Annex:	Clause:		
Key words:				
Shock absorption, fa	illing headform, alignment, procedure			
Question:				
What is the correct p	ositioning procedure of the helmeted headfor	rm for falling he	eadform shock absorption testing	ng?
The following standa	ards are affected:			
EN 966 : 2012 + A1	2012		e 7.2.3	
EN 1077 : 2007 EN 1078 : 2012 + A	1.2012	clause clause	e 5.5 (refers to EN 13087-2 : 20	000 cl. 5.3)
EN 1080 : 2013	1.2012	clause	* *	
EN 1384 : 2017			e 5.7.1 (refers to EN13087-2 : 2	2012 cl. 5.3)
EN 1385 : 2012	(1.44) 8 EN 12007 2 - 2012	clause		
EN 13087-2 : 2000 (EN 13484 : 2012	(+A1) & EN 13087-2 : 2012	clause clause		
EN 13781 : 2012		clause		

Solution:

Align the target impact point with the centre of the anvil and rotate the headform so that the centre of gravity of the headform, target impact point and anvil centre all lie on the same vertical axis.

Ideally, positioning should also place the line tangential to the external surface of the helmet at the target impact point, parallel to the anvil surface. However, if this cannot also be achieved, then priority shall be given to the alignment between headform centre of gravity, target point and anvil centre.

In circumstances when a tangential impact cannot be achieved, it is accepted that this may lead to the target impact point not being the first point of impact. This is acceptable so long as the first point of contact with the anvil is not so close to the edge of the anvil as to affect the test.

Considerations:

The various standards include various and differing statements regarding positioning:

"the system shall comprise......a system by which the point of impact can be brought into correspondence with the centre of the anvil." (e.g. EN966, EN1078, EN1080, EN1385)

"The impacts shall be directed towards the centre of gravity of the headform." (e.g. EN1077)

"shall comprise....a system to align the impact site with the centre of the anvil." (e.g. EN1384)

"The test headform shall be so positioned that the designated point on the helmet is vertically above the centre of the anvil. The plane tangential to the point of impact shall be horizontal." (e.g. EN13781)

Some of the standards include more than one of these statements, whilst some do not describe the positioning.

If the headform CoG is not aligned with the target impact point and the centre of the anvil, rotation will occur which may affect results. If the target point of impact is not tangential with the anvil and is not the first point of contact, this will also induce rotation which again may affect results. It has been considered that the effect of rotation caused by misalignment of the CoG is more critical and therefore alignment of the CoG should be prioritised.



PPE-R/01.004
Version 1

RECOMMENDATION FOR USE		
	Approval stage :	Approved on :
	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	21.04.2018 21.04.2018 29.11.2019
PPE Regulation	⊠ EN/prEN: EN 1384:1996 & EN1384:2012	☐ Other:
Annex:	Clause:	
tivities, peak, deflection		
peak deflection, what should be co	onsidered a peak, because the definitions given are	e not clear?
ollowing standards:		
N 1384 : 2012 clauses 3.10, 5.5 & 6.	.8	
material as the protective padding (t	that is, it is made from the same material of the sh	
	PPE Regulation Annex: tivities, peak, deflection peak deflection, what should be coollowing standards: I 1384 : 2012 clauses 3.10, 5.5 & 6 yes may be provided by an extensine construction of the helmet, such wearer from, the helmet. ose construction incorporates a she naterial as the protective padding (in the protective padding, it is considered to see construction does not incorporate.	Approval stage: Vertical Group Horizontal Committee EU PPE Expert Group PPE Regulation EN/prEN: EN 1384:1996 & EN1384:2012 Annex: Clause: Clause: Institution Ins



PPE-R/01	.006
Version 1	

Number of pages: 1		Approval stage :	Approved on :
Origin: Vertical Group 1		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	21.04.2018 21.04.2018 29.11.2019
Question related to PPE Regulation	⊠ EN/prE	N: Various	Other:
Article: Annex:	Clause:		
Key words:			
Kerbstone anvil			
Question: How shall a test be performed using the kerbstone anvil? The following standards are affected:			
EN 966: 1996 (+A1/A2) & EN 966: 2012 EN 1077: 2007 EN 1078: 1997 (+A1) & EN 1078: 2012 EN 1080: 1997 (+A1) & EN 1080: 2013 EN 13087-2: 2000 (+A1) & EN 13087-2: 2012 EN 13781: 2001 & EN 13781: 2012	clause 7 clause 5 clause 5 clause 5 clause 5	5.5 (refers to EN 13087-2 : 2000 5.4 5.3 5.3	O cl. 5.3)
Solution:			
The kerbstone anvil simulates the pavement edge; this means it has	to be consid	dered of endless length.	
For practical and technical reasons these anvils have a limited length	n as specifie	d in the standards.	
Test shall be performed in such a way that the edges of the anvil, as contacting, during positioning, the headform).	far as possi	ble, do not affect the results (fo	r example by directly



PPE-R/01.007
Version 1

	RECUIVIIVIENDA	ATTON FO	N U	JE	
Number of pages: 1			App	oroval stage :	Approved on :
Origin : Vertical Group 1			\boxtimes	Vertical Group Horizontal Committee EU PPE Expert Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: A	dl	Other:
Article:	Annex:	Clause:			
Key words:					
Test method standards					
Question:					
	dard does not cover all test specifications ar 3087 series) how should the Test Laboratory				
Solution:					
	fully described or clarified in the appropriate cific one, the Test Laboratory should refer to				
	ference between the procedure/equipment in tandard shall take precedent.	n the produc	et sta	ndard and that in the test n	nethod standard, the
	ncouraged to highlight individual situations in ion for Use sheet can be raised for each occ		matio	on is missing from the produ	uct standard so that a



PPE-R/01.008	
Version 1	

	INECOMINIENDA	ATTOM TO	100	L	
Number of pages: 1			Appro	oval stage :	Approved on :
Origin : Vertical Group 1			\boxtimes F	/ertical Group Horizontal Committee EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to [☐ PPE Regulation	⊠ EN/prEl	N: EN	443 : 2008	☐ Other:
Article:	Annex:	Clause: 5.7	7		
Key words:					
Retention system effective	veness, Pre-requisites				
	e 4 point f) requires the performance standants, so how shall the force be applied?	ard to specify	y the "	direction of application of	the force". EN 443 : 2008
Solution:					
The force shall be applied	d both to the front and rear in two separate t	tests, althouç	gh the	order is not critical.	
The single sample specif	ied by EN 443 : 2008 table B.1. shall be use	ed for both te	ests.		
The single sample must	satisfy the requirements for both the front ar	nd rear tests	in ord	ler that the model be cons	idered acceptable.



PPE-R/01.009	
Version 1	

	RECUIVIIVIENDA	TION FOR US	· C	
Number of pages: 1		Appro	oval stage :	Approved on :
Origin : Vertical Group 1		⊠ H	/ertical Group Horizontal Committee EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prEN: EN	443 : 2008	Other:
Article:	Annex:	Clause: 5.4, 5.5		
Key words:				
Shock absorption, Resis	stance to penetration			
Question:				
	tted or supplied with face protectors that are "non-integral protective functions", how shou stance to penetration"?			
Solution:				
The face protector shall	be placed in its "in-use" position.			



PPE-R/01.011 Version 1

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Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 1			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	21.04.2018 23.09.2020 30.06.2023
Question related to F	PE Regulation PPE Guidelines	⊠ EN/prE	N: EN397:2012+A1:2012	Other:
Article:	Annex:	Clause: 5.1	1.4	
Key words:				
Chin strap anchorage				
Question:				
Where are acceptable poi	ints of breakage for this test?			
Solution:				
Solution:				
Parts passing under the c devices should not be acc	hin are considered the chinstrap and failu cepted.	re shall not oc	ocur for these parts. Failure of I	buckles or similar 'closure'
If separate buckles or dev failure shall occur at this o	rices are provided for the purpose of creat levice.	ting a reusable	e disconnection that is intended	to release under load,
If such devices are not pro	ovided, failure shall occur for parts that do	not constitute	e the chinstrap passing under the	ne chin (refer above).
There shall be no breakaç	ge of strap material.			
Rationale:				
chinstrap anchorage. Pro	es that the helmet shell shall be fitted with iduct innovation since the conception of E nere the attachment begins can be unclea isable disconnection point for the chinstra	N397 has res	ulted in an increasingly diverse aried designs of products, some	range of products. Where



PPE-R/01.012 Version 1

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	1		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: Various	Other:
Article:	Annex:	Clause:		
Key words:				
Secondary impacts				
Question:				
Shall the results for se	condary impacts, i.e. after bounce, be conside	ered when m	aking assessment?	
Solution:				
No.				
Values obtained during	g secondary impacts, i.e. after bounce, shall be	e disregarde	ed.	



PPE-R/01.013 Version 1

Number of pages: 1	Approval stage	: Approved on :
Origin : Vertical Group 1	✓ Vertical Gro✓ Horizontal C✓ EU PPE Wo	
Question related to PPE Regulation	SEN/prEN: EN 1078:1997	7 & 2012
Article: Annex:	lause: 4.6.3	
Key words:		
Retention system, Fastening device		
Question:		
In cases where the design of the product ensures that the buckle doe capable of adjustment?	not sit on the jawbone, is i	t essential that the fastening device is
Solution:		
No.		
The primary purpose of this requirement is to ensure that the device of Buckles positioned under the chin or around the jaw area would need	·	ositioned high on the side of the face that
would not sit on the jawbone would not need to be moveable.	be moveable. Duckles p	ositioned high on the side of the face that



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Version 02

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Grou	лр 1		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	09.06.2021 01.10.2021 18.11.2022
Question related to	☐ PPE Regulation ☐ PPE Guidelines	⊠ EN/prE	N: Various	☐ Other:
Article:	Annex:	Clause:		
Key words: Penetration test bloc	k, radius			
Question:				
What is the correct ra	adius for the penetration test block?			
Solution:				
The radius should b	e 65mm.			
For all standards ex	cept EN 1384:2017, the tolerance on the radiu	ıs should be ±	1mm.	
Reason:				
EN 1384:2017, EN	12492:2012 and EN 13087-3:2000 are standar	rds that include	e specifications for a penetration	n test block.
(EN 13087-3 is refe block specification)	rred to by EN 443:2008, EN 1077:2007 and EN	N 14052:2012-	-A1:2012 without additional det	ails of the test
EN 1384:2017 claus	se 5.8.3 refers to EN 13087-3 but clarifies the t	test block as ha	aving a radius of (65 ± 5) mm.	
EN 12492:2012 incl	ludes a figure showing a block of radius 66.5ml	m with a diame	eter of 165mm. These dimension	ons are incompatible.
EN 13087-3:2000 fi	gure 1 shows the radius of the test block as 65	imm, but the di	ameter as 160mm. These dime	ensions are incompatible.
	ers stated would give a circumference larger that helmet to be fitted and allow movement to test			diameter that would permit



PPE-R/01.015 Version 1

RECOMMENDAT	ION FOR USE		
Number of pages: 1	Approval stage :	Approved on :	
Origin: Vertical Group 1	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019	
Question related to PPE Regulation	☑ EN/prEN: EN 1077:2007	☐ Other:	
Article: Annex: (Clause: 5.4		
Key words:			
Test area			
Question:			
How should the specified test area be marked on the helmet?			
Considerations:			
EN1077:2007 is the only standard (in the field of head protection) that helmet.	defines the impact test area on the head	form rather than on the	
In order to perform tests, the test area has to be reproduced on the hel this could lead to different test areas being marked on the helmet, and		ow this should be marked,	
Solution:			
The test area should be projected horizontally from the headform to the	e outer helmet surface.		
The 'corner' points of the test area shall be projected onto the helmet with lines laying on horizontal planes, parallel to reference plane; for side corners (points C, D, E) directed perpendicular to the vertical longitudinal plane, while for front and rear points (points A' and B) along the vertical longitudinal plane. Then the points marked on the helmet shall be connected by lines, using for example a flexible rule.			



PPE-R/01.01	6
Version 1	

Number of pages: 1			Approval stage :	Approved on :
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Origin : Vertical Group	1		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	:N: EN 397:1995 & 2012	☐ Other:
		EN 812:19		
Article:	Annex:	Clause: El	N 397 – 6.6.2, 6.7.2 / EN 812 -	- 6.5.2, 6.6.2
Key words:				
Shock absorption, Resi	istance to penetration, impact velocity			
Question:				
Is 0.5% the correct value drop height?	ue for the maximum permitted difference betw	een the actu	ual impact velocity and the theo	retical velocity for the stated
Solution:				
	ence should be 5% maximum.			
rto, are permitted amor	ones onesia so o /o maximam.			
0.5% is impractical and	I all other TC158 standards that specify a sim	ilar requirem	nent state 5%	
0.070 to impraotion and	rail other 10100 standards that speeding a simi	mai roquiron	ioni diale 070.	



PPE-R/01.01	17
Version 1	

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Number of pages: 1			Appı	roval stage :	Approved on :
Origin : Vertical Group 1				Vertical Group Horizontal Committee EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to [☐ PPE Regulation	⊠ EN/prE	N: EN	N 397:1995 & 2012	Other:
Article:	Annex:	Clause: 5.2	2.1		
Key words:					
Very low temperature, pr	e-conditioning				
Question:					
Is it necessary to perform been requested?	n shock absorption and penetration testing a	at -10°C if the	e very	y low temperature conditio	ning at -20°C or -30°C has
Solution:					
	10°C is a mandatory requirement.				
	To the manual of to quite in the control of the con				



PPE-R/01.019
Version 1

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Numb	er of pages: 1			Арр	roval stage :	Approved on :
Origin	: Vertical Group	1		\boxtimes	Vertical Group Horizontal Committee EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Quest	ion related to	☐ PPE Regulation	⊠ EN/prE	N: El	N 443:2008	Other:
Article	:	Annex:	Clause: 4.1	11 Fla	ame resistance	
Key w	ords:					
Helme	ets for Fire Fightin	g; Flame resistance				
5.13 "1	lowed to substitut	e the tests described in EN 443:2008 "Helm by the tests described in EN 136:1998 claus ording to clause 6 of the standard with "EN4	ses 7.6.3 and	hting 8.5.2	in buildings and other stru 2 during an Approval and E	ctures" clauses 4.11 and EU-Certification however
Solutio	on:					
No.						
The te	ests in EN 443:200	08 clauses 4.11 and 5.13 are completely diff	ferent from the	e tes	ts in EN 136:1998 clauses	7.6.3 and 8.5.2 with regard
-	time of impact,					
-	distance of the b	urners and sample under test,				
-	burner flame,					
-	positioning of the	e test sample.				



PPE-R/01.021 Version 1

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 1	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Gro	
Question related to PPE Regulation	⊠ EN/prEN: EN 397:2012 + A1:2012	☐ Other:
Article: Annex:	Clause: 5.2.5	
Key words:		
Molten metal splash, assessment		
Question:		
Shall assessment be limited to the 50mm radius circle onto which	the liquid metal is poured, or shall it apply	to other areas of the helmet?
Solution:		
Assessment shall apply to the shell of the helmet. With reference gutter.	to the definition of clause 3.4, 'brim', the s	hell does not include a brim or
Reason: The 50mm radius circle is just a target point for pouring of the met	al.	



PPE-R/01	.022
Version 1	

Number of pages: 1			Apn	proval stage :	Approved on :
· •					
Origin : Vertical Group 1				Vertical Group	21.04.2018
				Horizontal Committee EU PPE Working Group	21.04.2018 29.11.2019
Question related to	PPE Regulation	⊠ EN/prE	N: V	arious (see below)	Other:
Article:	Annex:	Clause: Va	arious	s (see below)	
Key words:					
Test position, Penetration	on testing, Molten metal testing				
Question:					
	reference to the "top" of the helmet/bump ca	ap when def	ining	certain test positions. The	top of the helmet/bump
cap is not defined, so w	hat is the "top"?				
Solution:					
	ump cap is that point on the outside surface o	of the helme	t/bun	no cap which would lie abo	ve the central vertical axis
of the headform, should	the helmet/bump cap be fitted normally to a	headform o			
highest point of the heln	net/bump cap when fitted to the test headforn	n.			
This applies to the follow	ving standards/clauses:				
EN 397:2012 + A1:2012					
EN 812:2012 clause 6.6					
EN 12492:2012 clause \$					
EN 14052:2012 +A1:20	12 clause 6.11.3				



PPE-R/01	.023
Version 1	

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 1		11
Chight. Voludal Group 1	∀ Vertical Group	21.04.2018
	☒ Horizontal Committee☒ EU PPE Working Group	21.04.2018 29.11.2019
Question related to PPE Regulation	N/prEN: EN 12492:2012	Other:
Article: Annex: Clause		
,	o. 0.0	
Key words:		
Penetration testing, sample restraint		
Question:		
How much restraint shall be used to hold a sample in position for testing?		
Solution:		
As little restraint as possible shall be used, but enough to ensure that the test reasonably significant amount of restraint.	st is performed correctly. In some c	ases, this may be a
Rationale:		
For some designs of helmet, rotating the helmet upon the test block in order the test block being able to pass between the harness so that the shell rests product was fitted on to a person or a full test headform. This was agreed to should be used to prevent such occurrence during the test.	s on the test block. This situation we	ould not occur when such a
reasonably significant amount of restraint. Rationale: For some designs of helmet, rotating the helmet upon the test block in order the test block being able to pass between the harness so that the shell rests product was fitted on to a person or a full test headform. This was agreed to	to target different parts of the 50mr on the test block. This situation we	n radius circle may result in ould not occur when such a



PPE-R/01.024
Version 1

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 1	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
	/prEN: EN 397:2012 + 2 and EN 12492:2012	☐ Other:
Article: Annex: Clause	:: ::	
Key words:		
Dual-marking		
Question:		
Is it possible to approve a product dual-marked for compliance with EN397:2	012 + A1:2012 and EN12492:2012	?
Solution:		
Yes.		
One way to achieve this is described below.		
In principle, the helmet shall satisfy the design and performance requirement provided with two chin-straps, one to satisfy the retention system requirement requirements of EN12492. In such a case, the chinstraps must be very clear user instructions shall state clearly how the helmet is to be configured in order	nts of EN397 and the other to satisfy labelled as to the applicability for	y the retention system



PPE-R/01	.025
Version 1	

Approval stage :	Approved on :
 ✓ Vertical Group ✓ Horizontal Committee 	21.04.2018 21.04.2018
 EN/prEN: EN 397:2012 +	29.11.2019 Other:
est is performed?	
position	
::	Vertical Group Horizontal Committee EU PPE Working Group in/prEN: EN 397:2012 + 012 se: 6.12.2 st is performed?



PPE-R/01	.026
Version 1	

Number of pages: 1	Approval stage : Approved on :
Origin : Vertical Group 1	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group✓ 29.11.2019
Question related to PPE Regulation	⊠ EN/prEN: EN 397:2012 + ☐ Other: A1:2012
Article: Annex:	Clause: 4.9
Key words: Ventilation, area measurement, covers	
Question: Which area of ventilation should be assessed when the helmet i the cover/external layer is not the same area as the aperture(s)	cludes hard covers/multiple layers and where the area of the aperture(s) in the internal layer (shell)?
Solution: The area of the smallest aperture(s) should be assessed, wheth	r this/these be in the cover/external layer or in the internal layer.



PPE-R/01.0)27
Version 1	

	RECUMINIENDA	THUN FUR	v US		
Number of pages: 1			Appr	roval stage :	Approved on :
Origin : Vertical Group 1			\boxtimes H	Vertical Group Horizontal Committee EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prEN	N: EN	1 443:2008	Other:
Article:	Annex:	Clause: 5.4	.1		
Key words:					
Shock absorption, headf	forms				
Question:					
For shock absorption tes headforms that comply of	sting of area 1a, should the headforms compl only with EN 960:1994?	ly with the re	quire	ments of EN 960:2006, or	is it acceptable to use
Solution:					
The headforms should c	comply with EN960:2006.				
Rationale:					
	.1 requires testing to be performed in accorda 4. According to referencing rules, it could be				
However, EN 443:2008	itself makes dated reference to EN 960:2006	S.			
Therefore, the interpreta headform sizes complying	ition has been made that testing should be peng with EN 960:2006.	erformed in a	accor	dance with EN 13087-2:2	000, but using equivalent



PPE-R/01	.028
Version 1	

Number of pages: 1	, , , , , , , , , , , , , , , , , , , ,		App	roval stage :	Approved on :
Origin : Vertical Group 1			' '	Ü	
ong versees ereap .				Vertical Group	21.04.2018
				Horizontal Committee EU PPE Working Group	21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: El	N 443:2008	Other:
Article:	Annex:	Clause: 5.8	 8		
Key words:					
Retention system streng	th, headforms				
Question:					
	ength testing, should the headforms comply v	with the req	uirem	nents of EN 960:2006, or is	it acceptable to use
headforms that comply of	only with EN 960:1994?				
Solution:					
The headforms should c	omply with EN960:2006.				
Rationale:		-	4000		
	requires testing to be performed in accordar ling to referencing rules, it could be assumed				
However, EN 443:2008 i	itself makes dated reference to EN 960:2006				
Therefore, the interpretation has been made that testing should be performed in accordance with EN 13087-5:2000, but using equivalent					
headform sizes complying	ng with EN 960:2006.				



PPE-R/01	.029
Version 1	

	INECOMINIEND?	AIIOIIIO	11 0	OL .	
Number of pages: 1			App	oroval stage :	Approved on :
Origin : Vertical Group 1			\boxtimes	Vertical Group Horizontal Committee EU PPE Expert Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: E	N 812:2012	Other:
Article:	Annex:	Clause: 7.	2.3 d))	
Key words:					
Marking					
Question:					
In clause 7.2.3 d), is the	reference to clause 7.1 correct?				
Solution:					
	to clause 7.2.2. instead				
,					
Rationale:					
	the significance of the markings under clause ean Standard', and requiring the significance				
EN 397:2012 + A1:2012 must be explained.	clause 7.2.3 d) includes a very similar requi	uirement, but	inste	ead it is the optional markin	gs for which the significance
It has been interpreted t	hat the requirement in EN 812 was intended	d to be of a s	imila	r to that in EN 397.	



PPE-R/01	.030
Version 1	

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 1	✓ Vertical Group	21.04.2018
	∀ertical Group Horizontal Committee	21.04.2018
		29.11.2019
Question related to PPE Regulation	☑ EN/prEN: EN 12492:2012	☐ Other:
Article: Annex:	Clause: 4.1.4	
Key words:		
Ventilation		
Question:		
Is it acceptable for a product to include adjustable ventilation that incl minimum area specified?	udes settings that would reduce the area o	f ventilation to less than the
Solution:		
Yes. Ventilation features shall be adjusted to their maximum opening	when measurements are taken.	



PPE-R/01.031
Version 1

Approved on:

RECOMMENDATION FOR USE

Approval stage:

Origin: Vertical Group 1					
				Vertical Group	21.04.2018
			_	Horizontal Committee	21.04.2018
			\boxtimes	EU PPE Working Group	29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: EI	N1384:2012	Other:
Article:	Annex:	Clause: 4.	1		
Key words:					
Thickness measurement	, Area of protection				
Question:					
For measurement of thic be made?	kness of protective padding in the area of p	protection but	t outs	ide of the test area, where	should this measurement
Solution:					
The measurement should be made 12mm up from the lower edge of zone 2 as illustrated below (see also Figure 1 of EN1384) and shall then be compared with the minimum thickness measured within zone 1.					
100E 1					
Rationale:					
The test area equates to thickness to be used for	zone 1 of the illustration. The minimum th comparison purposes.	ickness withi	n this	area should be measured	to determine the minimum
The minimum area of pro	otection comprises zones 1 and 2 of the illu	stration.			

Zone 3 indicates a portion of the helmet that falls neither within the minimum area of protection nor the test area.

EN1384 is ambiguous from which edge of the area of protection the measurements at 12mm should be taken.

As a minimum, a helmet must cover zones 1 and 2. Coverage of zone 3 is not mandatory.

along this line should be compared to the minimum thickness in the test area (zone 1).

Status: February 2024

It has been interpreted that it should be 12mm from the lower edge of the area of protection, as illustrated above. The minimum thickness



PPE-R/01.032
Version 1

RECOMMENDATION FOR USE			
Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group	1	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	☑ EN/prEN: EN 1384:2012	Other:
Article:	Annex:	Clause: 6.2	
Key words:			
Test sequence, sample	restoration		
Question:	re samples following reversible damage befo	are performing the next test in the test segue	ence?
is it described to resto	to samples tollowing toversible damage belo	no portorning the flox toot in the tool seque	
Solution:			
No, samples should be	tested without restoration.		
Rationale:			
	n occur during testing which could influence the t have a detrimental effect on penetration res		ce, e.g. detachment of
Some standards specify a sequence of testing just to minimise the number of samples required for a test programme.			
However, it was interpreted in this case that the sequence of testing was not just intended to reduce sample quantities, therefore samples should be left unchanged following each test before moving on to the next test in the sequence.			



PPE-R/01	.033
Version 1	

Number of pages: 1	Approval stage :	Approved on :
Origin: Vertical Group 1	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
	⊠ EN/prEN: EN 14052:2012 + A1:2012	Other:
Article: Annex:	Clause: 5.2.2	
Key words:		
Resistance to penetration, helmet test support		
Question:		
Is the sample tested on a headform, as suggested by clause 5.2.2?		
Solution:		
No, the sample is tested on the test block specified by EN 13087-3.		
Rationale:		
It has been interpreted that reference to a headform was an editorial e	error.	



PPE-R/01	.036
Version 1	

	KECOMINIENDA	TION OF	, 00	<i>,</i>	
Number of pages: 1			Аррі	roval stage :	Approved on :
Origin : Vertical Group 1			\boxtimes	Vertical Group Horizontal Committee EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to [☐ PPE Regulation	⊠ EN/prEN	N: EN	N 13484:2012	Other:
Article:	Annex:	Clause: Fig	ure 2	<u>)</u>	
Key words:					
Extent of coverage					
Question:					
Is the dimension of 25,5n	nm between points D & E correct?				
Solution:					
No, the drawing includes	an error.				
The 25,5mm dimension s	should be drawn between the vertical transve	verse plane a	nd po	oint E.	
Rationale:					
EN 13484:2012 figure 2 places point E at 25.5mm behind point D, but also behind the vertical transverse plane.					
This is in contradiction, because 25,5mm behind point D would be in front of the vertical transverse plane.					
EN 1077:2007 figure 1 is very similar and shows point E positioned 25,5 mm behind the vertical transverse plane.					



PPE-R/01.	037
Version 1	

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 1	✓ Vortical Craup	21.04.2018
	✓ Vertical Group✓ Horizontal Committee	21.04.2018
		29.11.2019
Question related to PPE Regulation	⊠ EN/prEN: EN 1385:2012	Other:
Article: Annex: (Clause: Clause 5.2 & Figure 1	
Key words:		
Coverage		
Question:		
Should point C be the mid-point of A-Z when measured over the surface	ce of the headform, or when projected from	m the side?
Solution:		
Point C should be the mid-point of A-Z when measured over the surface	ce of the headform.	



PPE-R/0)1	.038
Version	1	

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 1	•	
Singin: Voltada Group 1		21.04.2018
	☒ Horizontal Committee☒ EU PPE Working Group	21.04.2018 29.11.2019
Question related to PPE Regulation		Other:
Article: Annex:	Clause: Clause 7.8 & Figure 4	
Key words:		
Retention system effectiveness		
Question:		
In figure 4, where should the 600mm vertical dimension be measured	d from?	
Solution:		
The 600mm should be measured upwards from the reference plane.		
Rationale:		
With reference to EN 1078:2012 figure 5, an AA line was marked to s	show a section in the drawing.	
The AA line was marked erroneously in figure 4 of EN 1385, as no se	action was included in the drawing. All other	or standards that include this
test require the 600mm vertical dimension to extend upwards from th		er standards that include this



PPE-R/01	.039
Version 1	

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 1	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to PPE Regulation	☑ EN/prEN: EN 397:2012	Other:
Article: Annex:	Clause: 7.1 f)	
Key words:		
Helmet shell, Materials, Marking		
Question:		
In the case of a helmet for which the exterior comprises multiple comp abbreviation of the material shall be marked?	onents of different materials, what is the s	hell for which the
Solution: The shell shall be considered to be the predominant component of the	exterior of the helmet and an abbreviation	n for the material of that
predominant component shall be marked.	one in the inclination of the control of the contro	Tion the material of that
Abbreviations for the materials of other components may also be mark component upon which it is marked.	sed, however, the abbreviation used must	match the material of the



PPE-R/01.041
Version 1

N. de Commenda		A I	
Number of pages: 1	Approval stage :	Approved on :	
Origin : Vertical Group 1	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	21.04.2018 15.09.2019 14.03.2022	
	⊠ EN/prEN: EN 1077: 2007 / EN 1078+ A1:2012 / EN 1385: 2012	Other:	
Article: Annex: (Clause: See below		
Key words:			
Artificial ageing, ultraviolet irradiation			
Question:			
The following standards/clauses specify the use of a 125W xenon-filled	d quartz lamp for 48h at a distance of 250	mm:	
EN1077:20017 clause 5.5.5			
EN1078:2012+A1 clause 5.4.2.3			
EN1385:2012 clause 7.5.4			
The 125W xenon-filled quartz lamp is no longer sold on the market (since 2012). What is an appropriate alternative?			
Solution:			
A 150W lamp used for 40h at a distance of 250mm.			



PPE-R/0)1	.042
Version	1	

<u> </u>	TION TOK USE	
Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 1		21.04.2018
		15.09.2019
		14.03.2022
Question related to PPE Regulation PPE Guidelines	☑ EN/prEN: Various	☐ Other:
Article: Annex:	Clause:	
Key words:		
Lateral crushing, deformation		
Question:		
When a product is fitted with an integral visor, should the helmet be t	ested for lateral deformation/crushing with	the visor in the stowed or
deployed position?		
This relates to the following standards:		
This relates to the following standards:		
EN397:2012 + A1 clause 5.2.4		
EN443:2008 clause 4.4		
EN14572:2005 clause 5.7		
EN 16473:2014 clause 5.8		
Solution:		
Testing should be performed with the visor on both positions.		
• • • • • • • • • • • • • • • • • • • •		
A further sample should be used for testing with the visor in the seco	nd position.	



PPE-R/01.	043
Version 1	

Number of pages: 1		Approval stage :	Approved on :
Origin: Vertical Group 1		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 15.09.2019 14.03.2022
Question related to PPE Regulation PPE Guidelines	⊠ EN/prE	N: EN 397:2012 + A1	Other:
Article: Annex:	Clause: Va	rious	
Key words:			
Visor position, Testing			
Question:			
EN397 helmets may be fitted with integral visors that can slide inside	the helmet	, between the shell and the harr	ness.
Should the visor be stowed or deployed during testing?			
Solution:			
Testing should be performed as follows:			
Internal vertical distance - deployed			
Internal vertical clearance - if the visor does not seal off the air space and subtract the thickness of the visor. If the visor seals off the area			est with the visor deployed
Shock absorption - test with the visor in BOTH positions, but not repeating tests on the same sample			
Penetration - deployed			
Lateral deformation - see sheet 01.042			
Molten metal splash - deployed			
Electrical insulation - include the visor as required by each test.			
When not specified above, it is considered that the position of the vis	or does not	affect testing	



PPE-R/01.045
Version 1

NECOMMENDA	TION TON GOL		
Number of pages: 1	Approval stage :	Approved on :	
Origin : Vertical Group 1	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	24.05.2018 15.09.2019 14.03.2022	
Question related to PPE Regulation PPE Guidelines	☑ EN/prEN: EN 397:2012 + A1	Other:	
Article: Annex:	Clause: 4.4		
Key words:			
Internal vertical clearance, Internal vertical distance, Air supplied res	pirators		
Question:			
Powered or compressed air supplied respiratory protective devices (I	RPD) incorporating a helmet can include du	ucts passing over the top of	
the head.			
In this case, is the assessment of Internal Vertical Clearance and Internal Vertical Clearance	ernal Vertical Distance appropriate for such	devices?	
Solution:			
Internal vertical clearance - NO.			
Internal vertical distance - YES, but the duct could be removed for te	sting.		
Rationale:			
Tationale.			
Internal vertical clearance - EN397 clause 3.14 includes a note that indicates the specification relates to ventilation. VG1 considers that this relates to passive ventilation and cooling. Powered or compressed air RPD are designed to prevent the ingress of ambient air, but do instead provide either filtered air or compressed air which is delivered to the wearer, therefore providing active ventilation and cooling. Therefore, the test can be considered as not applicable to such products.			
Internal vertical distance - VG1 considers that whilst the requirement purpose of the measurement.	is applicable to such products, the duct co	uld be removed for the	



PPE-R/01	.046
Version 1	

Number of pages: 1		Арр	roval stage :	Approved on :
Origin : Vertical Group 1		\boxtimes	Vertical Group Horizontal Committee EU PPE Expert Group	24.05.2018 15.09.2019 14.03.2022
Question related to PPE Regulation PPE Guidelines	⊠ EN/prE	N: El	N 50365:2002	Other:
Article: Annex:	Clause: 5.4	1.2		
Key words:				
Marking durability, marking legibility, marking location				
Question:				
Clause 5.4.2 specifies that the marking shall be located on the "bottor	n of the hel	lmet :	shell peak".	
What should be done when the product has a small peak or does not	include a p	eak?		
Solution:				
$VG1\ considered\ that\ marking\ visibility\ and\ legibility\ were\ the\ priority,\ r$	ather than	locat	ion.	
In such cases, the marking may be located anywhere on the helmet, phelmet or move other components out of the way, even temporarily, to by the standard.				



PPE-R/01.047 Version 1

Num	ber of pages: 1		Approval stage :	Approved on :
Origi	n : Vertical Group 1		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	24.05.2018 23.09.2020 14.03.2022
Ques	stion related to PPE Regulation PPE Guidelines		N: EN16471:2014 & 014	☐ Other:
Articl	e: Annex:	Clause: 5.6	5/5.7	
Key	words:			
Flam	e resistance, Testing			
Ques How	stion: shall the flame resistance test be performed?			
Solut	ion:			
The f	following points shall be considered:			
1.	All externally exposed materials of the shell shall be tested.			
2.	In the case of the retention system, testing can include up to the	ne edge of ar	ny relevant component.	
3.	The test is an assessment of material and design, so whenever accessories too.	er possible, a	ctual components shall be tes	ted. This applies to
4.	Following 50°C pre-conditioning, the samples shall be allowed	to return to	ambient condition before testi	ng.
5.	The standard specifies requirements of the helmet shell, reten The standard does not specify what is to be done for integral p tested as per the requirements for accessories and non-integral	orotective de	vices, such as integral faceshi	
6.	When testing the shell, the instruction not to test within 5mm of	f an edge is	deemed to include edges crea	ited by ventilation features.

★ PPE ★	
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PPE-R/01.049
Version 1

	RECOMMENDA	ATION FO	R USE	
Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 1			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	21.04.2018 23.09.2020 14.03.2022
Question related to F	PPE Regulation PPE Guidelines	☐ EN/prE	N:	Other:
Article:	Annex:	Clause:		
Key words:				
Industrial safety helmets,	increased ventilation			
Question:				
	nave ventilation greater than that permitted avoid dangers associated with the accumul			
Can such products be cer	rtified?			
Solution:				
Such products can be cer	rtified using a suitable technical specification	on.		
The failure of such produc	cts to meet the requirement of EN397 clau	ise 4.9 requir	es that the product marking sha	ll not include EN397.



PPE-R/01.050
Version 1

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 1	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	21.04.2018 23.09.2020 14.03.2022
Question related to PPE Regulation PPE Guidelines EN/prE	:N: EN 1077:2007	Other:
Article: Annex: Clause: 4.	2.1	
Key words: Helmets for Alpine Skiers and Snowboarders with integrated speakers		
Question: EN1077 clause 4,2,1 includes a note that "Helmets shouldnot significantly into the case of helmets with integrated speakers, if used inappropriately there is profit the user to hear properly may be significantly affected, e.g. nearing snow community. How should this potential hazard be addressed when certifying such products?	potential for the volume of the so	
Solution: The manufacturer should include appropriate warnings in the information to be so reference to the possibility of hearing damage through prolonged excessive volus surroundings.		
	me ievels, and the potential red	uction in awareness of



PPE-R/01.05
Version 1

	ION I ON OOL	
Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 1	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	21.04.2018 23.09.2020 30.06.2023
Question related to PPE Regulation PPE Guidelines	EN/prEN: EN397:2012+A1:2012	Other:
Article: Annex: C	lause: 4.7.1	
Key words:		
Headband, Adjustment		
Question:		
Is it acceptable for a product to be available in discrete sizes, with the h 4.7.1?	neadband of each size not being adjustat	ole in accordance with
Solution:		
No. A headband that satisfies the requirement of 4.7.1 is required.		



PPE-R/01.052
Version 1

Number of pages: 1	,		App	proval stage :	Approved on :
Origin : Vertical Grou	ир 1		\boxtimes	Vertical Group Horizontal Committee EU PPE Expert Group	21.04.2018 23.09.2020 30.06.2023
Question related to	☐ PPE Regulation ☐ PPE Guidelines	⊠ EN/prE	N: E	N397:2012+A1:2012	Other:
Article:	Annex:	Clause: 5.2	2.4		
Key words:					
Lateral deformation,	test plates, positioning				
Question:					
How should the plate	es be positioned when testing?				
Solution:					
brim. There are ofte	should be careful to position the plates above the en other design features in the area where the plate e considered part of the brim and the plates can	ates are to b	e ap	plied, e.g. section including	



PPE-R/01.053
Version 1

RECOMMENDATION I	JI UUL	
Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 1	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	21.04.2018 23.09.2020 30.06.2023
Question related to PPE Regulation PPE Guidelines EN/pr	EN: EN397:2012+A1:2012	Other:
Article: Annex: Clause:		
Key words:		
Headband, variants		
Question:		
In the case of helmet models differing only by way of the headband adjustment necessary to carry out full testing on the helmet with each adjustment mechani		shet wheel type, is it
October		
Solution: No. The helmet should be tested using the standard sample quantities, with th headband adjustment variants	e samples split as evenly as pos	sible between the different

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PPE-R/01.056
Version 1

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Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 1			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	24.05.2018 23.09.2020 14.03.2022
Question related to F	PPE Regulation	⊠ EN/prE EN16473:2	N: EN16471:2014 & 2014	☐ Other:
Article:	Annex:	Clause: 5.	1	
Key words:				
Coverage, materials				
Question:				
·	ge of the area situated above plane AA' be	provided by	the shell material (only)?	
Solution:				
No, coverage may be pro	vided by other materials, so long as the par	t providing t	he coverage was integral to the	e helmet.



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Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 1			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	09.06.2021 01.10.2021 18.11.2022
Question related to F	PPE Regulation PPE Guidelines	⊠ EN/prE	N: EN 397:2012 A1 2012	Other:
Article:	Annex:	Clause: Va	rious	
Key words: Winter liners				
Question:				
Is additional testing requir	ed for a winter liner that is specified by the r	manufacture	r as an accessory to the helmet	?
Solution:				
Yes, depending upon the	performance claims of the helmet or the de	esign of the	iner.	
Performance of the produreviewed with the accessor	ct against certain optional requirements, su ory in place.	uch as molte	n metal protection or electrical	properties, should be
	should also be given to the release force o create an additional hazard.	of any Velcro	in the context of the requireme	nt for chinstrap anchorages,
Further test may be requi	red depending upon the particular winter lir	ner being co	nsidered.	



PPE-R/01.060
Version 1

	RECOMMENDA	TION I O	V	JL	
Number of pages: 1			Арр	roval stage :	Approved on :
Origin : Vertical Group	1		\boxtimes	Vertical Group Horizontal Committee EU PPE Expert Group	24.05.2018 23.09.2020 30.06.2023
Question related to [☐ PPE Regulation ☐ PPE Guidelines	⊠ EN/prE	N: 16	6473:2014	Other:
Article:	Annex:	Clause:			
Key words: Ventilation					
Question:					
Are ventilation holes p	ermitted?				
Solution: Yes, but the design of over the top of the heli	such ventilation features should be such that o	coverage of	the a	rea AA' is provided and inç	gress of chemicals poured



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Version 01

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 1	☑ Vertical Group☑ Horizontal Committee☑ EU PPE Expert Group	19.09.2019 01.10.2021 18.11.2022
Question related to PPE Regulation PPE Guidelines	EN/prEN:	☐ Other:
Article: Annex: Clau	use:	
Key words: Wind noise		
Question:		
How should the matter of wind noise be handled during the certification pro	ocess?	
Solution:		
The manufacturer should consider wind noise in their risk assessment and Notified Body.	d the suitability of the risk assessment	should be evaluated by the
Rationale:		
Wind noise is a problem for users of non-assisted bicycles and electric bic just from speed of travel, but additional noise can be generated by the des		
An immediate risk is the masking of ambient noise meaning the user cannot this time, in relation to wind noise there is no method specified for determined to the control of the control o		_
cycling whilst not wearing a helmet	Thining any additional risk from cycling	wrinst wearing a normet to



PPE-R/01.063

* ★ ★ * RECOMMEN	DATION FOR USE	
Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 1	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	19/09/2019 01.10.2021 18.11.2022
Question related to PPE Regulation PPE Guidelines	⊠ EN/prEN: EN812:2012	Other:
Article: Annex:	Clause: 6.5.3	
Key words: Test configuration		
Question:		
For clause 6.5.3 c), in what orientation should the headform be for	r the test on the rear of the bump cap?	
Solution:		
The headform should be in the orientation of rear upwards.		
Rationale: The front and rear of the headforms have different shapes. If the headform is set in the front-upwards orientation, this would configuration rather than a 'normal-wearing' configuration.	create a situation where the helmet is tested in	າ a 'reverse-wearing'



PPE-R/01.064

RECOMMEN	DATION	FOR	USE
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Number of pages: 1		App	oroval stage :	Approved on :
Origin : Vertical Group 1		\boxtimes	Vertical Group Horizontal Committee EU PPE Expert Group	25/06/2021 30/04/2022 31/08/2023
Question related to PPE Regulation PPE Guidelines	☐ EN/prE	N:		Other:
Article: Annex:	Clause:			
Key words: Electric bicycles, electric scooters, electric skateboards				
Question:				
Can we accept an application for type examination against (EU) 2016	6/425 if the t	use (of the helmet includes refer	rence to riding of electric
bicycles, electric scooters, electric skateboards etc?				
Solution:				
Yes and EN1078 would be a suitable specification.				
However, other National legislation may apply and additional certifica	tion must be	e so	ught by the manufacturer w	hen appropriate.



PPE-R/01.065

~	RECOMMEND	DATION FOR USE	
Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group 1		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	19.09.2019 01.10.2021 18.11.2022
Question related to P	PE Regulation	☑ EN/prEN: EN443:2008	☐ Other:
Article:	Annex:	Clause: 4.13.1	
Key words: Visible damage	9		
Question:			
Is colour change indication	of visible damage?		
Solution:			
		, the colour change should not be considered ir change should be considered visible damag	



PPE-R/01.066

~ * *	RECOMMENDA	ATION FOR USE	
Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group)1	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	19.09.2019 01.10.2021 18.11.2022
Question related to [☐ PPE Regulation ☐ PPE Guidelines	⊠ EN/prEN: EN397:2012 + A1:2012	☐ Other:
Article:	Annex:	Clause: 6.6.3a and 6.7.3a	
Key words: Ventilation	1		
Question:			
How should the headt	pand be adjusted to ensure "(minimal) clearanc	e"?	
Solution:			
The headband should	not be loose, but should be adjusted so that th	ne headband does not significantly influence	e the test result.



PPE-R/01.067

Version 01

	RECOMMEND	ATION FOR USE	
Number of pages: 1		Approval stage :	Approved on :
Origin : Horizontal C	ommittee	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	19.09.2019 01.10.2021 18.11.2022
Question related to	☐ PPE Regulation ☐ PPE Guidelines	☑ EN/prEN: EN50365:2002	Other:
Article:	Annex:	Clause: 5.1	
Key words: Specifica	tion		
Question:			
Is it possible to certify	y a helmet using EN 50365 if the product meets	s EN14052 and not EN397 or EN443?	
Solution:			
Yes, and the produc	ct may be marked according to		
EN50365. Rational	e:		
1. EN14052 was pu	blished later than EN50365.		
•	14052 is closely aligned with that of EN397.		
ine performance of	products tested to EN14052 exceeds those of p	products tested to EN39/.	



PPE-R/01.068

^	RECOMMENDA	ATION FOR USE	
Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group 1		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	19.09.2019 01.10.2021 18.11.2022
Question related to F	PPE Regulation PPE Guidelines	⊠ EN/prEN: EN50365:2002	☐ Other:
Article:	Annex:	Clause: 6.2.1	
Key words: Visual inspect	ion, metal parts		
Question:			
May such products include	e metal parts, even if those parts are not ex	sposed?	
Solution:			
	5.3 is considered incorrect and instead shound arts" is taken to apply to all materials of the	uld be 5.2. The meaning of the text under 5.2 e helmet.	2 "Insulating helmets shall



PPE-R/01.069

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Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 1			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	19.09.2019 01.10.2021 18.11.2022
Question related to F	PPE Regulation	⊠ EN/prE A1:2012	N: EN 14052:2012 +	☐ Other:
Article:	Annex:	Clause: 5.2	2.3 / 6.6	
Key words: Pre-conditioning	ng, delay			
Question:				
The period between remo delay is reasonable?	val of the test specimen from conditioning a	nd performi	ng of the retention system releas	se test is undefined. What
Solution:				
	ntinuous with minimal delay before the test	is performed	d.	
'	, ,	•		



PPE-R/01.070

→ ★ →	RECOMMEND	OATION FO	R USE	
Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 1			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	09/06/2021 01.10.2021 18.11.2022
Question related to	PPE Regulation PPE Guidelines	⊠ EN/prE A1:2012	:N: EN 397:2012 +	☐ Other:
Article:	Annex:	Clause: Va	arious	
Key words: Crown area				
Question:				
What is the crown area?				
	defined as: de surface of the helmet which lies within a is through the headform on which the helm		solid angle from point G (as de	fined in EN960:2006, 2.12)



PPE-R/01.071

RECOMMEN	DATION	FOR	USE
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Number of pages: 1				Approval stage :	Approved on :
Origin : Vertical Grou	ıp 1			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	09.06.2021 01.10.2021 18.11.2022
Question related to	☐ F	PPE Regulation PPE Guidelines	⊠ EN/prE A1:2012	EN: EN 397:2012 +	Other:
Article:		Annex:	Clause: 5.	1.4, 6.9	
Key words: Chin-strap anchorage	Э				
Question: Some designs of heli considered to have re		nclude more than two chinstrap anchora sed the artificial jaw?	iges. At which	stage in the test shall failure of	the anchorages(s) be
		ntil the risk of strangulation has been rem round the wearer's neck.	noved. Normall	y this will be when anchorages	have failed so as to prevent



PPE-R/01.072

Version 01

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Number of pages: 1	RECOMMEND	ATION FO	Approval stage :	Approved on :
			Approval stage .	Approved on .
Origin : Vertical Group 1			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	09/06/2021 30/04/2022 31/08/2023
Question related to	PPE Regulation	⊠ EN/prE	:N: EN443:2008	Other:
Article:	Annex:	Clause: 4.	14 a)	
Key words: Horizontal fid	eld of vision			
·	d field of vison in the horizontal directions	be assessed?		
Solution:				
The horizontal field of vis	sion should be assessed from points L1 an	nd L2 only.		
Rationale				
443:2008 clause 5.16 st	4 specifies requirements for horizontal field ates that testing shall be performed in accordizontal field of vision extending from point	ordance with I		
EN 13087-6:2012 clause should be disregarded.	e 5.4 clearly states that horizontal field of v	rision is meas	ured from points L1 and L2 so	figure 4 of EN 443:2008

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 2 "Respiratory protection"

of the European Coordination of Notified Bodies in the field of Personal Protective Equipment (PPE)

Regulation (EU) 2016/425

Number	Version	Reference	Keywords	Approved	Approved by	Endorsed by
of RfU			,	by Vertical	Horizontal	PPE Expert
PPE-R/				Group 2	Committee	Group
02.003	01	All standards	Variations, conformity	21.04.2018	21.04.2018	29.11.2019
02.015	01	Standards	Test panel, total inward	21.04.2018	21.04.2018	29.11.2019
		including IL/TIL	leakage testing (TIL),			
		tests	inward leakage testing (IL)			
02.018	01	EN 149:2001	Modified PPE	21.04.2018	21.04.2018	29.11.2019
02.027	01	EN 136:1998	Full face mask, flammability, head harness	21.04.2018	21.04.2018	29.11.2019
02.036	01	EN 250:2014	Respiratory Protective equipments, Open-circuit self-contained compressed air diving apparatus (SCUBA), PPE Components	21.04.2018	21.04.2018	29.11.2019
02.043	01	EN 137:2006	Respiratory Protective Equipments, flame engulfment test, bulky devices	21.04.2018	21.04.2018	29.11.2019
02.044	01	EN 13794:2002 EN 13274-2:2001	Respiratory Protective Equipments, practical performance tests	21.04.2018	21.04.2018	29.11.2019
<u>02.046</u>	01	EN 13794:2002	Self-contained closed- circuit breathing apparatus for escape (SCCBA); Carbon-dioxide (CO2) content	21.04.2018	21.04.2018	29.11.2019
02.047	01	EN 12941:1998/A2:20 08	Powered helmet/hood, filter connection	21.04.2018	21.04.2018	29.11.2019
02.048	01	All standards	Equipment standard, test standard	21.04.2018	21.04.2018	29.11.2019
02.049	01		Children, EN testing, EU certification	21.04.2018	21.04.2018	29.11.2019
02.051	01	EN 140:1998	Valves, replacement	21.04.2018	21.04.2018	29.11.2019
02.054	01	All standards	Total Inward Leakage, talking passage	21.04.2018	21.04.2018	29.11.2019
02.055	01	EN 14387:2004/A1:20 08	Marking, filter packaging	21.04.2018	21.04.2018	29.11.2019
02.058	01	All standards	Reporting, Test results	21.04.2018	21.04.2018	29.11.2019
02.059	01	EN 137:2006	Resistance to temperature	21.04.2018	21.04.2018	29.11.2019
02.060	01	EN 137:2006	Temperature performance	21.04.2018	21.04.2018	29.11.2019
02.061	01	EN 149:2001/A1:2009 EN 1827:1999/A1:200 9	Choice of standard	21.04.2018	21.04.2018	29.11.2019
02.062	01	EN 143:2001/A1:2006	Filter, clogging, penetration test	21.04.2018	21.04.2018	29.11.2019
02.063	01	EN 14387:2008	Carbon Monoxide Filter Marking	21.04.2018	21.04.2018	29.11.2019
02.073	01	EN 14594:2018	Compressed air supply tube, Resistance to kinking	08.08.2019	15.09.2019	14.03.2022

02.080	01	EN 143:2021	Specified mass of test aerosol for exposure test	10.02.22	30.04.22	31.08.23
02.081	01	EN 143:2021	Conditioning sequence reversed	10.02.22	30.04.22	31.08.23
02.082	01	EN 143:2021	Storage test, use of "for single shift use only" pictogram	10.02.22	30.04.22	31.08.23
02.083	01	EN 149:2001+A1: 2009	Temperature, Conditioning, Mechanical Strength, Condition of specimen	29.04.22	31.05.23	31.01.24
02.084	01	EN 14387:2021	Specified mass of test aerosol for exposure test	29.04.22	31.05.23	31.01.24
02.085	01	EN 14387:2021	Conditioning sequence reversed	29.04.22	31.05.23	31.01.24
02.086	01	EN 149:2001+A1: 2009	Colors, applied colors	08.06.22	31.05.23	31.01.24
02.087	01	EN 137:2006	Flame engulfment, hood	21.04.23	31.05.23	31.01.24



PPE-R/02.003
Version 1

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 2	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to PPE Regulation	☐ EN/prEN: All standards	Other:
Article: Annex:	Clause:	
Key words: Variations, conformity		
Question:		
How to treat the many variations of essentially the same equipm	nent?	
e. g. a turbo unit with a series of different facepieces / hoods an	nd filters.	
How many tests should be performed?		
Solution:		
Perform as many tests as needed to verify the conformity of a verify the conformity of the complete equipment.	all elements in the different versions of the equ	pment also perform tests to
Comment:		
This suggestion was made that Notified Bodies should matesthouses.	ke their own decisions to establish the same	e testing procedures for all



PPE-R/02.01	0
Version 1	

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	2		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	☐ EN/prE	N: Standards including IL/TIL tests	Other:
Article:	Annex:	Clause:		
Key words: Test panel,	total inward leakage testing (TIL), inward le	akage testing	(IL)	
Question:				
	ge testing the EN standards of RPD typically			
If the RPD is submitted	in several sizes, should a test house select	the test pane	I to ensure that all sizes have b	een tested?
Solution:				
In the case of an RPD I are tested for inward le	peing submitted for type examination in mor akage.	e than one siz	ze then the test panel should be	arranged so that all sizes
Sufficient specimens sh	nall be provided to enable a total of 10 IL / T	IL tests to be	performed.	
It may not be possible t	o test all sizes of RPD.			



PPE-R/02.018 Version 1

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	2		✓ Vertical Croup	24.04.2049
			☑ Vertical Group☑ Horizontal Committee	21.04.2018 21.04.2018
			⊠ EU PPE Working Group	29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: EN 149:2001	Other:
Article:	Annex:	Clause:		
Key words: Modified P	PE .			
Question:				
If an existing, certified,	filtering facepiece (EN 149:2001) is modified	by adding ar	n exhalation valve, can a reduce	ed panel (fewer tests
subjects) for total inwa	rd leakage testing be used to assess complian	nce of the m	odified product?	
Solution:				
No, it is not possible to performance.	reduce the number of tests because the addi	itional exhala	ation valve has a noticeable influ	uence on the expected
•	alve is added to a certified filtering half mask	(EN 149:200	1) the product is considered as	a new model.



PPE-R/02.027 Version 1

Number	of pages: 1		Approval stage :	Approved on :
Origin : V	/ertical Group 2		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question	related to PPE Regulation	⊠ EN/prE	N: EN 136:1998	Other:
Article:	Annex:	Clause: Re	equirements § 7.6 testing § 8.5	& 8.13
Key word	ds:			
Full face	mask, flammability, head harness			
Question	1:			
Q1	Shall the head harness be targeted directly?			
Q2	How shall the mask be oriented when testing?			
Q3	Shall burning of the head harness for more than 5s be a fail			
Q4	May the mask be removed from the head form between the		,	
Q5	If a product satisfies the post-flammability leak tightness tes head harness, is this a failure?	t, even witr	n mechanicai damage (which m	ay include breakage) to the
	neau namess, is this a failure?			
Solution:				
A1	No.			
A2	The laboratory shall decide on the appropriate orientations thead harness, are exposed directly. Three samples shall be			•
A3	Yes. If burning of the head harness for more than 5s results	from indire	ect exposure, then this is a failu	re.
A4	Yes because this is the practice of the majority of the test ho	ouses.		
A5	No.			



PPE-R/02.036
Version 1

	RECOMIN	IENDATION FO	K U3E	
Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 2			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☑ PPE Regulation	⊠ EN/prE	N: EN 250:2014	Other:
Article:	Annex:	Clause:		
Key words: Respiratory P	rotective equipments, Open-circuit	self-contained comp	oressed air diving apparatus (SC	CUBA), PPE Components
Question:				
	or, as a SCUBA sub-assembly cons rchangeable component of a PPE i			
disassembled without	et cases, a pressure reducer, a med t using special tools and can appare ponents of a PPE in the meaning of	ently be replaced wit	h other similar devices, can the	
Solution:				
specifically designed	or can be mounted on a SCUBA ar and manufactured to be interchang provided with its user's manual.			
	re reducer, a medium pressure hose erally designed and manufactured t			nd without using any special
In fact the calibration	of a diving regulator is performed a	it factory level exclus	sively on the assembled device.	
	a medium pressure hose or a dem m the manufacturer stating at least		ne on the market they will be ac	companied by an
	nat the product is a spare part of a sormation leaflet will give clear refere			
	nents of a diving regulator are desi formed and the need for any subse		by the user, the manufacturer	shall provide clear guidance



PPE-R/02.043	3
Version 1	

✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
EN: EN 137:2006	☐ Other:
vices	
·	rest point of the device
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PPE-R/02.044 Version 1

	RECOMMENDA	THON FU	NUSL			
Number of pages: 1			Approval stage :	Approved on :		
Origin : Vertical Group 2			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019		
Question related to	☐ PPE Regulation	⊠ EN/prE	N: EN 13794:2002 EN 13274-2:2001	☐ Other:		
Article:	Annex:	Clause:				
Key words: Respiratory Protective Equipments, practical performance tests						
Question:						
EN 13794:2002 refers to wrong activities in the test method standard EN 13274-2:2001.						
What are the correct references?						
Solution:						
Replace in clause 7.16.2.2 of EN 13794:2002 the numbers 16, 20, 17, 18 by 7, 9, 13, 8.						
Replace in clause 7.16.2.3 of EN 13794:2002 the number 16 by 7.						
Replace in clause 7.16.3 of EN 13794:2002 the number 15 by 1.						



PPE-R/02.046 Version 1

<u> </u>	RECOMMENDATION FOR USE		
Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group 2		✓ Vertical Group✓ Horizontal Commi✓ EU PPE Working	
Question related to	☐ PPE Regulation	☑ EN/prEN: EN 13794:2002	☐ Other:
Article:	Annex:	Clause:	
Key words: Self-containe	ed closed-circuit breathing apparatus for es	cape (SCCBA); Carbon-dioxide (CO	2) content
Question:			
Why shall the requirement in EN 13794:2002, clause 6.19.3, "After the rated working duration and up to a breathing resistance of 35 mbar the CO2 content shall not exceed 3.0 percent by volume", apply for devices with a rated duration of less/equal 15 minutes only?			
Solution:			
Test as if a new paragra	ph would be inserted after the first sentence	e in clause 6.19.2, 2nd paragraph so	that the wording
	duration and up to a breathing resistance or contained closed-circuit breathing apparatu		exceed 3.0 percent by volume"
Perform the tests in acco	ordance with clause 7.10.1 of the standard.		
Explanatory statement :			
	Since SCCBA normally don't include a warning device which allows the user to notice that the rated duration is exceeded, the only indication for the exhaustion of oxygen is a high inhalation resistance.		
Due to the PPE Regulation Annex II, clause 1.2.1 "Absence of inherent risks and other nuisance factors" the "PPE must be designed and manufactured so as not to create risks or other nuisance factors under foreseeable conditions of use".			
The usage of a SCCBA as long as it supports breathing, regardless of its rated working duration, is a foreseeable condition of use if the wearer is in an escape situation. An exceedance of the 3 percent by volume limit of inhaled CO2 is a risk for the user, however.			



PPE-R/02.047 Version 1

Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group 2		✓ Vertical Group✓ Horizontal Con✓ EU PPE Worki	nmittee 21.04.2018
Question related to	☐ PPE Regulation	☑ EN/prEN: EN 12941:1998/A2	2:2008
Article:	Annex:	Clause:	
Key words: Powered h	nelmet/hood, filter connection		
Question:			
and that the system is	designed in such a way that it shal	out integrated blower must not contain a st not be possible to connect a filter directly to connection of a filter to a hood/helmet can	to the hood/helmet. Does the
Solution: The breathing hose is	considered as an extension of the	ood/helmet and therefore the thread restric	ctions shall be applied also to the end
of the breathing hose	(see clause 6.3.1 in EN 12941:1998	/A2:2008)	



PPE-R/02.048 Version 1

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	2		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: All standards	Other:
Article:	Annex:	Clause:		
Key words: Equipment	standard, test standard			
Question:				
When test methods diff	fer between device and test standards, which	one has to b	pe used?	
Solution:				
	is required by the device standard has to app	-		
If the test description in	n the device standard is misleading/imprecise/	incomplete t	the test standard could give cla	ification.



PPE-R/02.049 Version 1

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 2	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ EN/prEN:	Other:
Article: Annex:	Clause:	
Key words: Children, EN testing, EU certification		
Question: How to deal with EU certification request for Respiratory Protective D	Devices specially designed for children? (i.e	a. based on EN 149)
Solution: The PPE regulation does not exclude PPE for children. VG2 considers that the RPD standards were not written with conside Certification would be possible according to just the PPE regulation.	ration of the requirements of children.	



PPE-R/02.051 Version 1

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	2		∨ Vertical Group	21/04/2018
			☐ Vertical Group ☐ Horizontal Committee	21/04/2018
			⊠ EU PPE Working Group	29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: EN 140:1998	Other:
Article:	Annex:	Clause: 6.	12.1	
Key words: Valves, rep	lacement			
Question:				
Must valve assemblies	be able to be replaced as required by clause	6.12.1?		
(The wording of clause	s 6.9 and 6.12.1 seem incompatible in the cas	se of integra	I components of inhalation and	exhalation valves.)
Solution:				
No. If any components	s of valve assemblies are not intended by the	manufacture	er to be replaced, that is accepta	able.
Reason:				
	esponding requirements in clause 7.10 and cla 998 clause 6.12.1 which make the requiremer			n clause 7.15.1 when
This additional wording	is underlined below:			
"Valve assemblies sha	Il be such that they can be readily maintained	and <u>if intend</u>	ded by the manufacturer correct	ly replaced."
EN 140:1998 clause 6.	12.1 should be read as if including the additio	nal words.		



PPE-R/02.054 Version 1

Number of pages: 1	Approval stage :	Approved on :
Origin: Vertical Group 2	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to PPE Regulation	☑ EN/prEN: All Standards	Other:
Article: Annex:	Clause:	
Key words: Total Inward Leakage, talking passage		
Question:		
How should the test subject speak during TIL?		
Solution:		
The test subject should be instructed as follows:		
"During the talking exercise, you should speak clearly and at a volum		ible to hear your words.
You should not introduce prolonged pauses into the speaking, excep	t when breathing.	
The exercise will require increased effort. Whilst your breathing may follow punctuation of text, you are free to be	preathe more frequently	
It is not intended that you should be over-exerted and struggling to be		
The not interiord that you enough be ever exerted that enagging to be	oddio ddinig tilo oxoroloo.	



PPE-R/02.05	5
Version 1	

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	2		☑ Vertical Group☑ Horizontal Committee	21.04.2018 21.04.2018
			⊠ EU PPE Working Group	29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prEN	: EN 14387:2004/A1:2008	☐ Other:
Article:	Annex:	Clause: 8.3		
	Alliiex.	Olause. 0.5		
Key words: Marking, filt	er packaging			
Question:				
	he filter package shall be marked at least v		ng information:"	
Upon which part of the	filter package should the markings be give	n?		
Solution:				
The marking should be	applied to the smallest commercially available	able package.		
It is accepted that the s	mallest commercially available package is	not always the	most immediate packaging.	
D				
Reason:	oludo similar raquiramento, a g. FN 142.20	000 alausa 0 4	rafar to marking of the smallest	aammarajally availabla
other standards that inc	clude similar requirements, e.g. EN 143:20	100 clause 9.4,	refer to marking of the smallest	commercially available



PPE-R/02.058 Version 1

Number of pages: 1		Approval stage :	Approved on :	
Origin : Vertical Group	2		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: All Standards	Other:
Article:	Annex:	Clause:		
Key words: Reporting,	Test results			
Question:				
Is it necessary to repor	t measurement values in addition to reporting	the assessr	nent for each clause?	
Solution:				
Yes.				
The values used to det	termine the assessment should be reported.			



PPE-R/02.059 Version 1

Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group	2	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prEN: EN 137:2006	Other:
Article:	Annex:	Clause: 7.4.1.1 & 7.4.1.2	
Key words: Resistance	to temperature		
Question:			
In the case of apparatu apparatus, or just to the		sure vessels, does the storage time of 12 hours	apply to the whole
Solution:			
The storage time applie	es to the whole apparatus.		



PPE-R/02.060 Version 1

^	RECOMMENDATION FOR USE		
Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group 2		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	☑ EN/prEN: EN 137:2006	Other:
Article:	Annex:	Clause: 6.11.1	
Key words: Temperature	performance		
	s to the requirements for breathing resistance ore not to have operated 'trouble-free'?	e, can other defects result in the apparatus	being considered to have
Solution:			
Yes.			
If the warning device activates during the test at pressures above the normal expected activation pressure, the apparatus should be considered to have malfunctioned and therefore not to have operated 'trouble free'.			
If leaks are detectable (evitrouble-free'.	ven by hand), the apparatus should be consi	idered to have malfunctioned and therefore	e not to have operated
This is not intended as ar 'trouble-free'.	n exhaustive list as other malfunctions may b	pe observed that are symptomatic of the ap	pparatus not operating



PPE-R/(2.061
Version	1

Number of pages: 1			Approval stage :	Approved on :	
Origin : Vertical Group 2	2				
			✓ Vertical Group	21.04.2018	
			☒ Horizontal Committee☒ EU PPE Working Group	21.04.2018 29.11.2019	
0 " 1111					
Question related to	☐ PPE Regulation	⊠ EN/prEN:	EN 149:2001/A1:2009 EN 1827:1999/A1:2009	Other:	
Article:	Annex:	Clause:			
Key words: Choice of st	andard				
Question:					
Are there situations in w	hich both EN 149:2001/A1:2009 or EN 182	?7:1999/A1:20	09 could be considered an appro	priate choice of standard?	
Solution:					
	When taking into account the scope and description of EN 149:2001/A1:2009 and EN 1827:1999/A1:2009, in the circumstance that all of				
	n standards could be considered appropriate		,		
The mask consists substantially, but not entirely, of filter material					
The mask does not include inhalation valves.					
The mask includes a re-	The mask includes a re-usable frame/grid to hold the filter				
The harness is attached	The harness is attached to the re-usable frame/grid				
The filter protects again	st particles only				
The filters are separable	e from the re-usable frame/grid				
The filters are replaceat	ole				
The filters are designed	for a maximum of single shift use.				
It should be noted that t	he filter may or may not form the primary se	eal against the	e face and exhalation valve(s) ma	y or may not be included.	
Whichever standard is o	chosen, the product shall satisfy all of the re	elevant require	ements of the chosen standard.		



PPE-R/02.062 Version 1

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 2	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to ☐ PPE Regulation ☐ EN/p	rEN: EN 143:2001/A1:2006	Other:
Article: Annex: Clause:		
Key words: Filter, clogging, penetration test		
Question: In EN143 after the clogging test the penetration test has to be performed. In the a) test until 120 mg loading of aerosol (NaCl and paraffin oil) b) or the penetration is measured as the average over a time of (30±3)s, 3 mg. When and how long should the penetration be measured?		e testing time is.
Solution: The penetration after the clogging is measured as the average over a time of (30+3)s 3 min after the start	
The penetration test before the clogging is measured until 120 mg loading of a penetration for three minutes.	erosol. So after the clogging it is	sufficient to measure the



PPE-R/02.063 Version 1

Number of pages: 1	Approval stage : Approved on :
Origin : Vertical Group 2	 ✓ Vertical Group ✓ Horizontal Committee ✓ EU PPE Working Group ✓ 21.04.2018 ✓ 21.04.2018 ✓ 29.11.2019
Question related to PPE Regulation 🖂 I	EN/prEN: EN 14387:2008
Article: Annex: Clau	use: 1
Key words: Carbon Monoxide Filter Marking	
Question:	
Is it possible to have a mixed marking of multi-type gas filters according to according to another standard than EN 14387:2008?	o EN 14387:2008 including a Carbon monoxide (CO) marking
Solution:	
EN 14387:2008 states the Scope "Filters for use against CO are excluded	d from this standard."
A mixed marking is not possible.	
An additional, clearly separated marking on the filter is possible.	



PPE-R/02.073 Version 1

Number of pages: 1	Approval stage :	Approved on :		
Origin: VG2	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	08.08.2019 15.09.2019 14.03.2022		
Question related to PPE Regulation PPE Guidelines EN/pri	EN: EN 14594:2018	☐ Other:		
Article: Annex: Clause: 6	.10.2			
Key words: Compressed air supply tube, Resistance to kinking				
Question:				
A/ The initial starting position of the hose clamps appears inconsistent between position nof the hose clamps?	en Figures 5, 6 and Figure 7. Wha	at is the correct starting		
B/ There appears to be no reference to how quickly the hose is straightened.	What is the time duration of the te	est?		
Solution:				
A/ Position the hose clamps as demonstrated in Figure 7				
B/ The loop is to be straightened over between 5 seconds and 15 seconds.				



PPE-R/02.080

Version 1

	RECOMMENT	<u>JATION FO</u>	R USE		
Number of pages: 1			Approval stage :	Approved on :	
Origin : Vertical Group	2		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	10/02/2022 30/04/2022 31/08/2023	
Question related to	☐ PPE Regulation ☐ PPE Guidelines	⊠ EN/prE	EN: EN 143:2021	☐ Other:	
Article:	Annex:	Clause:			
Key words: specified n	nass of test aerosol for exposure test				
Question:					
According to EN 143:2	2021 para 6.12, Exposure tests shall be carri	ied out.			
Mass of test aerosol is a pre-requisite of EN 13274-7:2019 (para4).					
Mass of test aerosol is not specified in EN 143:2021.					
What is the mass of te	st aerosol to use?				
Solution:					
The mass of test aeros	sol to use during exposure tests is 120mg.				
ĺ					



Version 1

	NECOIVIIVIEND	ATION TON USL			
Number of pages: 1		Approval stage :	Approved on :		
Origin : Vertical Gro	up 2	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	10/02/2022 30/04/2022 31/08/2023		
Question related to	☐ PPE Regulation ☐ PPE Guidelines	⊠ EN/prEN: EN 143:2021	☐ Other:		
Article:	Annex:	Clause:			
Key words: condition	ning sequence reversed				
Question:					
In EN 143:2021, conditioned filter shall be tested after the temperature conditioning in accordance with 7.4.1 followed by the mechanical strength conditioning in accordance with 7.4.2					
In previous version of the standard EN 143:2000+A1:2006, filter shall be tested after mechanical strength conditioning followed by temperature conditioning.					
The conditioning sequence is reversed.					
For filter already tested according to EN 143:2000+A1:2006, due to of this conditioning sequence reverse, do we have to repeat the tests according to EN 143:2021?					
Solution:					
The modification of the conditioning sequence is an alignment with ISO 17420-2.					
This modification is not a modification of the state of the art.					
	It's not necessary to repeat tests due to the modification of conditioning sequence.				
It can be necessary to repeat tests for other reason					
1					



PPE-R/02.	.082
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Version 1

RECOMMEN			
Number of pages: 1	Approval stage :	Approved on :	
Origin: Vertical Group 2	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group		
Question related to PPE Regulation PPE Guidelines	⊠ EN/prEN: EN 143:2021	☐ Other:	
Article: Annex:	Clause:		
Key words: Storage test, use of "for single shift use only" pictogra	m		
Question:			
- N and NR markings are deleted from EN 143:2021.			
- A pictogram "for single shift use only" is defined in 3.2.2			
- According to 6.12, all particle filter should conform Exposure	test (5.4 of EN 13274-7:2019) and Storag	e test (5.5 of EN 13274-7:2019)	
- In 8 "markings", symbol 3.2.2 is not referenced			
Does it mean that all particles filters shall conform to test after sto	rage, be classified as reusable and symbo	ol of §3.2.2 shall not be used?	
Solution:			
All particles filters shall meet the requirements after storage tests.			
If a manufacture still wants to indicate that single shift use is reco	mmended, the manufacturer should use th	e pictogram defined on 3.2.2 of	
The single shift use shall be clearly and completely defined in the instruction for use.			



PPE-R/02.083

Version 1

RECOMMENDATION FOR USE

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Gro	up 2		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	29/04/2022 31/05/2023 31/01/2024
Question related to	☐ PPE Regulation ☐ PPE Guidelines	⊠ EN/prE	EN:	Other:
		EN 149:20	01+A1:2009	
Article:	Annex:	Clause:		
Key words: Tempera	ature Conditioning, Mechanical Strength, Cond	ition of specir	nen	
Question:				
What is the correct condition of filtering half mask for Mechanical Strength and Temperature Conditioning according to EN 149:2001+A1:2009?				
Solution:				

If Specimen are received with packaging:

1/ Mechanical Strength

- According to 8.3.3 of 149:2001+A1:2009, Mechanical Strength shall be done in accordance with EN 143.
- According to 8.3.2 of EN 143:2000+A1:2006 and 6.10.2 of EN 143:2021. Un-encapsulated filter(s) shall be subjected to Mechanical Strength in the smallest commercially available package.

Filtering half mask shall be subject to mechanical Strength According to 8.3.3 of 149:2001+A1:2009 in the smallest commercially available package (e.g. cardboard box of 10 Filtering half mask).

The condition of specimen during mechanical strength shall be detailed in the test report.

2/ Temperature conditioning

- Paragraph 8.3.2 of 149:2001+A1:2009 defines only: "Expose the particle filtering half masks to the following thermal cycle: ..." Compared to several other European standard (EN 143, EN 1827...), this sentence is unclear.
- According to 8.3.2 of EN 143:2000+A1:2006, the filter in its packaging, if appropriate, shall be subjected to the thermal cycle
- According to 6.10.1 of EN 143:2021, the filters in their ready for assembly state shall be subjected to the temperature conditioning Ready for assembly state is "component with seals, plugs or other environmental protective means, if applicable, still in place"

Filtering half mask shall be subject to temperature conditioning According to 8.3.2 of 149:2001+A1:2009 in the single packaging when existing (e.g. single plastic bag) or in the smallest commercially available package (e.g. cardboard box of 10 Filtering half mask). The condition of specimen during temperature conditioning shall be detailed in the test report.

If Specimen are received without packaging:

Condition of specimen during conditioning shall be agreed with the manufacturer.

The condition of specimen during conditioning shall be detailed in the test report.



Version 1

	RECOMMEN	DATION FOR USE			
Number of pages: 1		Approval stage :	Approved on :		
Origin : Vertical Group	2	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	29/04/2022 31/05/2023 31/01/2024		
Question related to	PPE Regulation PPE Guidelines	☑ EN/prEN: EN 14387:2021	☐ Other:		
Article:	Annex:	Clause:			
Key words: specified n	nass of test aerosol for exposure test				
Question:	7.0004 5 42.0 5	inited and according to FN 40074 7,0040 F 4			
_	According to EN 14387:2021, 5.13.2, Exposure tests shall be carried out according to EN 13274-7:2019, 5.4				
Mass of test aerosol is a pre-requisite of EN 13274-7:2019; 4. Mass of test aerosol is not specified in EN 14387:2021.					
What is the mass of te	st aerosol to use?				
Solution:					
The mass of test aeros	sol to use during exposure tests is 120mg.				



PPE-R/02.08

Version 1

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 2	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	29/04/2022 31/05/2023 31/01/2024
_	EN/prEN: 14387:2021	☐ Other:
Article: Annex: Clar	use:	
Key words: conditioning sequence reversed		
Question: In EN 14387:2021, conditioned filter for inhalation resistance (5.11) and F conditioning in accordance with 5.10.1 and 6.4.1 followed by the mechani In previous version of the standard EN 14387:2004+A1:2008, for the sam followed by temperature conditioning. The conditioning sequence is reversed.	cal strength conditioning in accordance	e with 5.10.2 and 6.4.2
For filter already tested according to EN 14387:2004+A1:2008, due to this according to EN 14387:2021?	s conditioning sequence reverse, do w	re have to repeat the tests
Solution:		
The modification of the conditioning sequence is an alignment with ISO 1	7420-2.	
This modification is not a modification of the state of the art.		
It's not necessary to repeat tests due to the modification of conditioning se	equence.	
It can be necessary to repeat tests for other reason.		



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Version 1

RECOMMENDATION FOR USE

Number of pages: 1		Approval stage :	Approved on :	
Origin: Vertical Gro	up 2		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	08/06/2022 31/05/2023 31/01/2024
Question related to ☐ PPE Regulation ☐ PPE Guidelines ☐ EN/prE			EN:	Other:
		EN 149:20	001+A1:2009	
Article:	Annex:	Clause:		
Key words: colors, a	applied colors			
O 11				

Question:

- a) For filtering half masks supplied in a variety of colours, how should testing and certification be performed?
- b) Do the testing recommendations depend on how the color has been applied to the mask?

Information on possible color options:

The inner and outer layer or the entire filtering half mask can be coloured by mixing the color throughout the polymer material or the color can be applied onto the mask material by painting, printing, spraying, or coating. Different kinds of colors and their patterns can be applied e.g. for each batch. Also, the head bands can be coloured by mixing the color throughout the (polymer) material.

Inkjet technique is not covered by this RFU.

Solution for the question a)

Declarations of the manufacturer

If the manufacturer makes a written declaration that the material of the filtering half masks is consistent across the colors and that the colors do not affect performance, it is not necessary for the Notified Body to require the testing of each color. Below minimum recommendation for the tests should be followed.

If the manufacturer does not provide such a written declaration, complete testing of each color shall be performed.

The manufacturer shall declare for each colored version that the filtering half mask does not affect adverse effects on the user's health.

The manufacturer shall declare that visibility and legibility are controlled for the markings of each color.

Minimum recommendation for the tests

For initial type-examination, the testing should include as wide range of the available colors supplied by the manufacturer as possible but perform testing using the standard sample quantities.

If the manufacturer wishes to add a color to a type-examined filtering half mask, which has no colored versions in initial testing, these tests are recommended for the first three color versions:

- EN 149:2001+A1:2009, 7.9.2 (Penetration of filter material), paraffin oil only, preconditioning of the samples: 3 AR, 3 SW and 3 MS+TC
- EN 149:2001+A1:2009, 7.16 (breathing resistance), preconditioning of the samples: 3 AR, 3 TC and 3 SW
- EN 149:2001+A1:2009, 7.11 (Flammability), preconditioning of the samples: 2 AR and 2 TC

If the manufacturer wishes to add even further colors with the same coloration technique, it is concluded that the coloration technique and the colors do not affect the performance of the filtering half mask and further testing is not needed.

EU type-examination

If any of the filter penetration, breathing resistance or flammability test results for a colored version is significantly different from the other test results, passing of all the tests of EN 149:2001+A1:2009 standard are required for the colored version. The magnitude of the significant difference shall be decided in EU type-examination.

The technical documentation shall describe each color or the coloring technique and color variability if the color and its pattern can be variable. The technical documentation shall include a written declaration to ensure that marking is visible and legible on each color of mask.

If the Notified Body deems it necessary, samples with markings can be requested in order to check the visibility and legibility of markings. For example, black marking on dark color is not acceptable.

If the EU type-examination certificate has a description or drawing for recognizing the filtering half mask, all colors shall be included, or in case of the variable colors and patterns produced, the coloring technique, and if possible, the limits of the colors shall be described.

Solution for the question b)

If the filtering half mask has any visible changes besides the color, e.g. surface structure of the colored layers, the mask shall be treated as different product.



PPE-R/	02.087
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Version 1

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Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Grou	ир 2	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	21/04/2023 31/05/2023 31/01/2024
Question related to	☐ PPE Regulation ☐ PPE Guidelines		☐ Other:
Article:	Annex:	Clause:	
Key words: Flame er	ngulfment, hood		
Question:			
EN 137:2006 cl 7.4.1	1.3.1 reports "During this test no helmet sha	Il be fitted to the manikin's head."	
The use of a hood to	protect the harness during the flame engul	fment test is not described in EN 137:2006.	
Is it possible to use a	a hood to protect the harness for the flame e	engulfment test considering the normal use of	the PPE?
Solution:			
Yes, the normal firef	ighters' clothes would include a hood.		
Note: in the draft of pharness.	orEN 137:2022, which refers to §6.2.5 of ISC	O 16900-10:2015, it is clearly stated that a ho	od shall be used to protect the

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 3 "Eye and face protection" of the European Coordination of Notified Bodies in the field of Personal Protective Equipment (PPE)

Regulation (EU) 2016/425

Number of RfU PPE-R/	Version	Reference	Keywords	Approved by Vertical Group 2	Approved by Horizontal Committee	Endorsed by PPE Expert Group
03.032	01	ISO 16321:2021 series EN ISO 12312-2 : 2013	Blue Light Absorption / Transmittance, protection against blue light emitted by natural or artificial sources	26.11.2021	30.04.2022	31.08.2023

Status: October 2023



PPE-R/03.032

Version 01

RECOMMENDATION FOR USE

Number of pages: 1	umber of pages: 1		Approval stage :	Approved on :	
Origin : Vertical Gro	oup 3		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	26/11/2021 30/04/2022 31/08/2023	
Question related to	☐ PPE Regulation ☐ PPE Guidelines		N: ISO 16321 : 2021 ISO 12312-2 : 2013	☐ Other:	
Article:	Annex:	Clause:			
,	ght Absorption / Transmittance, protection aga	inst blue light e	emitted by natural or artificial so	ources	
requirement for blue sources. A requiren requirement for the	does only establish a requirement for solar blue-light absorption / transmittance for spectacle nent for the blue-light absorption / transmittance blue light absorption / transmittance is given in y of these standards.	s and glasses be of welding fi	intended to protect against rad Iters is given in ISO 16321-2:20	liation emitted from artificial 021, 4.3.1.2. Another	
	equirement for the blue-light absorption / trans nitted from artificial sources in the blue spectra		ectacles, lenses or glasses int	ended to provide protection	
Solution:					
depends on the inte	• • • • • • • • • • • • • • • • • • • •			·	
True	. I. C (I			(I I I. I P. I. (. I P	

If the manufacturer claims that a filter (lenses, ocular etc) provides a protection against blue light, either / both the solar blue-light absorption / transmittance τ b (for protection against sunlight) or / and the blue-light absorption / transmittance τ b (for protection against artificial sources) shall be specified. Where it is claimed that a filter has less than t % (solar) blue-light transmittance, the (solar) blue-light transmittance, t to t the filter shall not exceed (t + 0,5) %. Where it is claimed that a filter has more than t % (solar) blue-light absorption, the (solar) blue-light transmittance, t both the solar blue-light transmittance or / and the blue-light transmittance shall be measured according to ISO 18526-2 9.1 or / and 9.2.

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 4 "Hearing protection" of the European Coordination of Notified Bodies in the field of Personal Protective Equipment (PPE)

- 1110 - 1

Regulation (EU) 2016/425

Number	Version	Reference	Keywords	Approved by	Approved by	Endorsed by
of RfU				Vertical	Horizontal	PPE Expert
PPE-R/				Group 4	Committee	Group
04.001	01	EN 352-1:2002/ 13819-1:2002	Earmuffs with different wearing modes, headband force	21.04.2018	21.04.2018	29.11.2019
04.006	01	EN 352 (all parts), 13819-2	HPD of particular size, sound attenuation measurement	21.04.2018	21.04.2018	29.11.2019
04.007	01	EN 13819- 1:2002	Ear-muffs, drop test	21.04.2018	21.04.2018	29.11.2019
04.008	01	EN 13819- 2:2002	Sound attenuation, earplugs in different colours	21.04.2018	21.04.2018	29.11.2019
04.009	01	EN 13819- 2:2002	Sound attenuation, custom moulded earplugs	21.04.2018	21.04.2018	29.11.2019
04.010	01	EN 352-2:2002	Corded custom moulded earplugs, corded earplugs, earplugs	21.04.2018	21.04.2018	29.11.2019
04.011	02	EN 352-2:2002	Re-usable earplugs, storage-packaging	20.05.2021	01.10.2021	18.11.2022
04.012	01	EN 352-3:2002	Helmet-mounted earmuffs	21.04.2018	21.04.2018	29.11.2019
04.015	01	EN 352- 4:2001/13819- 2:2002	Level-dependent earmuffs, MIRE, measurement noise, volume control	21.04.2018	21.04.2018	29.11.2019
04.017	01	EN 352-2:2002	Custom moulded earplugs	21.04.2018	21.04.2018	29.11.2019
04.019	01	EN 352-4:2001, 352-8:2008	Level-dependent earmuffs with integrated broadcast-receiver	21.04.2018	21.04.2018	29.11.2019
04.020	02	EN 352-6:2002	Communication earmuffs with an audio input (by wire)	20.05.2021	01.10.2021	18.11.2022
04.022	01	EN 352-6/-8/- 11:2002	Hearing protection device with audio communication	21.04.2018	21.04.2018	29.11.2019
04.027	01	EN 352-8:2008	Wireless complete hearing protection systems with reproduced sound for entertainment	21.04.2018	21.04.2018	29.11.2019
04.036	01	EN 13819- 2:2002	Insertion loss, asymmetric design, electronic earmuffs	21.04.2018	21.04.2018	29.11.2019
04.037	01	EN 13819- 1:2002	Nominal size designation, flanged earplugs	21.04.2018	21.04.2018	29.11.2019
04.038	01	EN 352-4:2001 EN 352-7:2002	Level dependent earmuff/earplugs, minimum criterion levels	21.04.2018	21.04.2018	29.11.2019
04.039	01	PPE Regulation	Earplugs, special use, risk in water	21.04.2018	21.04.2018	29.11.2019
04.040	01	EN 352-7:2002	Earplugs, non-passive earplugs, special use, impulse noise	21.04.2018	21.04.2018	29.11.2019
04.041	01	EN 352-6:2002	Calculation of mean electrical input level, earmuffs with electrical audio input	21.04.2018	21.04.2018	29.11.2019
04.042	01	EN 352-2:2002	Banded earplugs worn under the chin, test dimension for sizing	21.04.2018	21.04.2018	29.11.2019

Status: February 2024

Number of RfU PPE-R/	Version	Reference	Keywords	Approved by Vertical Group 4	Approved by Horizontal Committee	Endorsed by PPE Expert Group
04.043	01	EN 352-2:2002	Banded earplugs, exchange of plugs of banded earplugs	21.04.2018	21.04.2018	29.11.2019
04.044	01	EN 352-6:2002	Earmuffs with electrical audio input, electrical safety	21.04.2018	21.04.2018	29.11.2019
04.045	01	EN 352-2:2002	Additional check of protective function, custom moulded earplugs, leakage	21.04.2018	21.04.2018	29.11.2019
04.049	01	EN 352-6:2002	Earmuffs with communication facilities	21.04.2018	21.04.2018	29.11.2019
04.050	02	EN 352-5:2002 + A1:2005	Hearing protectors with active noise control	20.05.2021	01.10.2021	18.11.2022
<u>04.051</u>	01	EN 13819- 2:2002	Drop test for earplugs	21.04.2018	21.04.2018	29.11.2019
04.052	01	EN 352-6:2002	Hearing protectors for safety-related communication, user information	21.04.2018	21.04.2018	29.11.2019
04.054	01	EN ISO 4869-1 + -2	Sound attenuation, decimal place, APV	24.11.2017	18.07.2018	05.11.2018
<u>04.055</u>	01	prEN 13819- 3:2016	Hearing protectors with Bluetooth® facilities	02.10.2017	18.07.2018	05.11.2018
04.056	01	EN 352-2:2002	Earplugs for children, user information	20.05.2021	01.10.2021	18.11.2022
04.057	01	EN 352-2:2020	Custom moulded earplugs, individual fit test by the customer itself	03.03.2023	31.05.2023	31.01.2024
04.058	01	EN 352-3:2020	Mounted earmuffs, earmuffs attached to head protection and/or face protection devices, package information, labelling, size range, warning	07.07.2022	31.05.2023	31.01.2024
04.059	01	EN 13819-2: 2020	Under-the-chin banded earplugs, replacement of test subjects	07.07.2022	31.05.2023	31.01.2024

Status: February 2024



PPE-R/04.00
Version 01

Number of pages: 1	Approval stage : Approved on :
Origin: VG 4 Hearing protection	 ✓ Vertical Group ✓ Horizontal Committee ✓ EU PPE Working Group ✓ 21.04.2018 ✓ 29.11.2019
	N/prEN: EN 352-1:2002/
Article: Annex: Clau	se: 4.3.8 of EN 352-1, 4.4 of EN 13819-1
Key words:	
Earmuffs with different wearing modes, headband force	
Question:	
The test procedure (measurement of headband force) for earmuffs in differ EN 352-1 and EN 13819-1. How shall the testing of 'headband force' and 'different wearing modes?	
Solution: 1. When the change in headband force is checked during mechanical test	s, the tests shall be performed only with one headband mode.
2. When measurements of the headband force have to be repeated the ea	armuff shall be allowed to recover for at least 4 hours.



PPE-R/04.006 Version 01

Number of pages: 1		1	Approval stage :	Approved on :
Origin: VG 4 Hearing	protection		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prEN 13819-2	: EN 352 (all parts),	☑ Other: ISO 4869-1
Article:	Annex:	Clause: 4.2	(of 13819-2:2002)	
Key words: HPD of particular size,	sound attenuation measurement			
Question: How to test hearing pro	otectors of particular size in accordance with E	:N 13819-2:20	002, clause 4.2?	
Solution: VG 4 agrees that, whe be used:	n HPDs of a particular size (e.g. large, small)	under EN 352	(all parts) are to be tested, th	e following protocol should
	which does not fit all size ranges given in the performed. If it does not, the subject shall be r			



PPE-R/04.007 Version 01

Number of pages: 1			Approval stage :	Approved on :
Origin : VG 4 Hearing p	protection		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: EN 13819-1:2002	Other:
Article:	Annex:	Clause: 4.6	6 and 4.7	
Vovvvordo				
Key words: Ear-muffs, drop test				
Ear-muns, drop test				
Question:				
	examined for damage after drop test?			
Solution:				
	PD for damage after drop test, if necessary, th	e cushions	and/or liners should be removed	d before examination and
then replaced.	,			



PPE-R/04.008 Version 01

Number of pages: 1			Approval stage :	Approved on :
Origin : VG 4 Hearing p	protection		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: EN 13819-2:2002	☑ Other: ISO 4869-1
Article:	Annex:	Clause: 4.	2	
Key words:				
Sound attenuation, ear	plugs in different colours			
Question:				
Shall sound attenuation	n measurements be repeated in case an earp	lug is suppli	ed in different colours?	
Solution:				
If possible, one measur	rement should be performed and the samples	used for the	at measurement should include	all colours.



PPE-R/04.009 Version 01

Number of pages: 1			Approval stage :	Approved on :
Origin : VG 4 Hearing p	rotection		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: EN 13819-2:2002	☑ Other: ISO 4869-1
Article:	Annex:	Clause: 4.	2	
Key words:				
Sound attenuation, cus	tom moulded earplugs			
Question:				
	moulded earplugs are offered with a special on measurements be performed using such cre		led to ease the insertion of the	earplug into the ear-canal.
Shall sound attenuation	Threasurements be penormed using such cre	aiii!		
Solution:				
The sound attenuation	measurements shall be performed without the	e use of suc	h cream.	



PPE-R/04.010 Version 01

Number of pages: 1	Approval stage :	Approved on :
Origin: VG 4 Hearing protection (submitted by BGIA)	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to PPE Regulation	☑ EN/prEN: EN 352-2:2002	☐ Other:
Article: Annex: II, 1.2.1 C	lause:	
Key words:		
Corded custom moulded earplugs, corded earplugs, earplugs		
Question:		
By sudden and fast removal of earplugs ear drum ruptures occurred, es earplugs out of the ear canal. What should notified bodies require from		gs was used to remove the
The manufacturer should add a warning to the user information: "Warning damage the ear drum."	ng: Sudden or fast removal of the earplu	gs out of the ear canal may



PPE-R/04.011

Version 2

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Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Gro	up 4		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	20.05.2021 01.10.2021 18.11.2022
Question related to	□ PPE Regulation □ PPE Guidelines	⊠ EN/prE	:N: : EN 352-2:2002	Other:
Article:	Annex:	Clause: 4.	2.2.4	
Key words: Re-usable earplugs,	storage-packaging			
Question:				
How should a storage-packaging for re-usable earplugs be designed?				
Solution:				
No recommendation	n can be given. The notified body has to assess t	he storage-p	ackaging provided by the manu	facturer_from case to case.



PPE-R/04.012
Version 01

Number of pages: 1	Approval stage :	Approved on :
Origin : VG 4 Hearing protection		21.04.2018
		21.04.2018
0		29.11.2019
Question related to PPE Regulation	⊠ EN/prEN: EN 352-3:2002	Other:
Article: Annex:	Clause: 4.3.4	
Key words:		
Helmet-mounted earmuffs		
Tromot mounted darmand		
Question:		
A helmet-earmuff combination fulfilling the requirements "adjustabilit	y" for M- and L-size has a headband force	< 14 N for the M-size, but >
14 N for the L-size. Can this combination be tested and sold as an N	I-size combination only?	
Solution:		
It was agreed that such a combination can be tested and sold as an	M-size combination only.	



PPE-R/04.015
Version 01

RECOMMENDATION FOR USE

Number	of pages: 1			Approval stage :	Approved on :
Origin : V	/G 4 Hearing	protection		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question	related to	☐ PPE Regulation	⊠ EN/prE 4:2001/138	N: EN 352- 319-2:2002	⊠ Other: ISO 4869-4
Article:		Annex:	Clause:	/ 4.3.3	
Key word		nuffs, MIRE, measurement noise, v	volume control		
Question	:				
1		nethod should be used for the test ic test fixture) technique be used?		ophone in real ear) or HATS (h	ead and torso simulator) or
2	Which tolera	nces shall be aimed at for the ger	neration of the L-orientate	ed, M- , and H-orientated noise	described in EN 352-4?
3	·				f the earmuff?
Solution:					
1	including sup towards the ISO 11904-1 is in between	echnique as described in Annex B oporting elements and electrical le centre axis of the ear canal (this described shall be used, i.e. open ear in the ear canal entrance and the e	eads, shall occupy an are differs from EN ISO 1190- canal and the port of the ear drum, preferably near	a not exceeding 25 mm ² in the 4-1). The microphone position e microphone shows towards the by the ear canal entrance in a	plane perpendicular shown in Figure 1 a) of EN ne ear drum and the position distance of a few mm.
2	2 M-noise: $L_C-L_A=(+2\pm0.2)$ dB; H-orientated noise: $L_C-L_A=-1.2^{+0.1}_{-0.2}$ dB; L-orientated noise: $L_C-L_A=+6^{+0.4}_{-0.2}$ dB. Measure in one-third-octave bands and calculate the L_C-L_A value.				= $+6^{+0.1}_{-0.2}$ dB. Measure in
3	Adjust to ma	ximum volume.			

Status: February 2024



PPE-R/04.017 Version 01

Number of pages: 1		Approval stage :	Approved on :	
Origin : VG 4 Hearing p	protection (submitted by BIA, Germany)		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: EN 352-2:2002	Other:
Article:	Annex:	Clause:		
Key words:				
Custom moulded earplugs				
0 "				
Question:				
Which qualification is required for a person, who makes impressions of the concha and external ear-canal of the test subjects?				
Calatiana				
Solution: It should be carried out by a trained specialist for hearing aids or adequately trained personal.				
it should be carried out by a trained specialist for flearing alds or adequately trained personal.				



PPE-R/04.019
Version 01

Number of pages: 1	Approval stage :	Approved on :
Origin: VG 4 Hearing protection	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to PPE Regulation S:20	EN/prEN: EN 352-4:2001, 352- 108	Other:
Article: Annex: II, 1.2 Clau	ise:	
Key words: Level-dependent earmuffs with integrated broadcast-receiver		
Question: How should level-dependent earmuffs with built-in broadcast-receivers be	tested?	
Solution: Level-dependent earmuffs with built-in broadcast-receivers should be teste	ed in the following way:	
1. as a level-dependent earmuff according to EN 352-4:2001 and 2. as a broadcast earmuff using either signal generators or public broadca 8:2008.	st stations applying the MIRE-techniq	ue according to EN 352-
Within a final test all functions of the earmuff shall be set to maximum volu (according to EN 352-4:2001) at criterion level and simultaneously a public is received by the specimen under test. The maximum sound level achieve	c broadcast station or a corresponding	g signal of a signal generator
The manufacturer has to give a warning in the user information: "The audit	bility of warning signals at a specific w	vorkplace may be impaired."



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Version 2

	RECUMINIEND	ATION FUR USE	
Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group 4		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	20.05.2021 01.10.2021 18.11.2022
Question related to 🖂 I	PPE Regulation PPE Guidelines	⊠ EN/prEN: : EN 352-6:2002	Other:
Article:	Annex:	Clause:	
Key words:			
Communication earmuffs	with an audio input (by wire)		
Question:			
How should communication	on earmuffs be tested? Which requirement	ts shall be fulfilled by these HPDs?	
Solution:			
One way system:			
1. In addition to the rec	uirements found in EN 352-6:2002, Annex	cB, clause B.3 input voltages shall be given ir	r Vrms.
2. Assessment:			
	limitation test the limiter; the mean plus one vel equal to 85 dB(A) minus 3 dB(A).	e standard deviation of the equivalent diffuse	-field related SPL shall
in order not to exc	eed the daily exposure limit. Two warnings	ufacturer delivered for the user (e.g. "criterion s have to be given in the user information like hearing protector may not be used to restore	"When exceeding the
Two way system:			
		a the microphone using an artificial mouth acc lating noise according to IEC 60268-1 from 60	
The manufacturer has to	give a warning in the user information: "The	e audibility of warning signals at a specific wo	rkplace may be impaired."



PPE-R/04.022
Version 01

RECOMMENDATION FOR USE

Number	of pages: 1		Approval stage :	Approved on :
Origin : V	/G 4 Hearing protection		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question	related to 🛛 PPE Regulation	⊠ EN/prE	N: EN 352-6/-8/-11:2002	☐ Other:
Article:	Annex: II, 3.5	Clause:		
Key word	ds:			
Hearing _I	protection device with audio communication			
Question):			
i)	Is a hearing protection device (HPD) with audio communica 2016/425?	ition a hear	ing protector within the meaninຸ	g of the regulation (EU)
ii)	ii) Is it possible to certify a communication hearing protector without sound pressure limiter limiting the total exposure of the user according to the requirement given in the PPE regulation?			
Solution:				
i)	It is an HPD if the manufacturer declares it and it should me	eet the requ	irements of the regulation.	
ii)	ii) From the technical point of view it is possible to produce every communication hearing protector with a sound pressure level limiter. Therefore in general it should not be possible to certify communication hearing protectors without limiter. In case a specific need exists for no limitation or a limitation at higher values of L _{Aeq} (equivalent continuous A-weighted sound pressure level) than the limit values given by the			
	essential health and safety requirement "Protectic regulation (EU) 2016/425 on personal protective e		ne harmful effects of noise", cla	use 3.5 of Annex II of the
	the use has to be restricted to specific applications. These packaging. In addition, an appropriate warning and a descr information in order not to exceed the daily limit value.			
İ				

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PPE-R/04.027 Version 01

Number of pages: 1			Approval stage :	Approved on :
Origin : VG 4 Hearing p	protection (submitted by BIA, Germany)		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: EN 352-8:2008	Other:
Article:	Annex:	Clause:		
Key words:				
=	ring protection systems with reproduced soun	d for enterta	inment	
Question:				
These systems transm	it signals for example via local induction loaps	. How shoul	d such products be tested?	
Solution:				
They should be tested	as earmuffs with broadcast receivers (see EN	352-8:2008	3, 5.2.3).	



PPE-R/04.036	Ć
Version 01	

RECOMMENDATION FOR USE

	RECO	WINENDATION FO	N USE	
Number of pages: 1			Approval stage :	Approved on :
Origin : VG 4 Hearing pro	otection (submitted by BIA, Gern	many)	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: EN 13819-2:2002	Other:
Article:	Annex:	Clause: 4.	1.4	
Key words: Insertion loss, asymmetri	ic design, electronic earmuffs			
band flexing, water imme between left and right cul is intended by the manuf- communication signals. The mean is taken over a 4,0 dB in four or more ad	d to test variations of sound atterersion,) because conditioned a ps. For specific purposes manufacturer, e.g. left cup with lower stall cups and the criterion is given diacent one-third-octave bands, are mentioned special earmuffs also	and non-conditioned spe facturers produce electro sound attenuation and ri n in EN 352-1 resp3 as and not greater than 7,0	ecimens are tested together. EN onic earmuffs which show differ ght cup with higher attenuation is follows: The standard deviation dB in any individual one-third-or	I 13819-2 does not separate ent sound attenuation. This and restored on shall not be greater than octave band. This criterion
Solution:	·	<u> </u>		·
a case the manufacturer	1 resp3 to be used for the inse has to include a statement (war e users' safety resulting from the	ning) in the user informa	ation specifying the special purp	

Status: February 2024



PPE-R/04.037 Version 01

Number of pages: 1	Approval stage :	Approved on :
Origin: VG 4 Hearing protection	✓ Vertical Group✓ Horizontal Comm✓ EU PPE Working	
Question related to PPE Regulation	☑ EN/prEN: EN 13819-1:2002	☐ Other:
Article: Annex:	Clause: 5.2.3	
Key words:		
Nominal size designation, flanged earplugs		
Question:		
EN 13819-1, clause 5.2 reads: In order to assign a nominal size desi	anation to each earplug, the dime	nsions of that part or those parts of
the earplug that are intended to seal the ear canal are assessed using		
Which flanges shall seal the circular hole?		
Solution:		
At least that flange showing the smallest and that one with the larges	t diameter shall seal one circular h	hole.



PPE-R/04.038 Version 01

RECOMMENDATION FOR USE

Number of pages: 1	Ap	oproval stage :	Approved on :
Origin : VG 4 Hearing protection (submitted by BIA, Germany)			21.04.2018 21.04.2018 29.11.2019
· ·	☑ EN/prEN: E IN 352-7:2002	EN 352-4:2001 2	☑ Other: EN 352-1: 2002, EN 352-2:2002, EN 352-3:2002
Article: Annex: (clause: 4.3.2 ((in both standards)	
Key words:			
Level dependent earmuff/earplugs, minimum criterion levels			
Question:			
Existing standards of the EN 352 series do not specify any minimum p worn (as designed) with the level-dependent mode in operation. In cas passive mode but exposes the user by an internal level of 86 dB(A) wh dependent mode this hearing protector offers a lower level of protection	e a level-depe ere the exterr	endent earmuff/earplug provi nal level is 83 or 86 dB(A) wh	des sufficient attenuation in
How shall these products be dealt with?			
Solution:			
All products shall at least have a criterion level (for all test noises H, M very high amplification and/or a very high standard deviation.	and L) of 85 (dB(A). This eliminates extren	ne products that have a
In addition to that requirement there are minimum criterion levels derive 352-1 to -3 (H = 12 dB, M = 11 dB, L = 9 dB):	ed from the m	ninimum attenuation values fo	or passive HPDs from EN
Minimum criterion level H: 97 dB(A)			
Minimum criterion level M: 96 dB(A)			
Minimum criterion level L: 94 dB(A)			
(The determination of criterion levels is specified in EN 352-4:2001+A1	:2005.)		
These requirements shall only be applied for products that are aimed a defined for impulse noise (e.g. for hunters) it is not necessary to meet			s that are specifically
The criterion levels shall nevertheless be mentioned in the user information noise levels.	ation with a w	varning that the product is no	t suited for high continuous

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PPE-R/04.039 Version 01

Number of pages: 1			Approval stage :	Approved on :
Origin: VG 4 Hearing pr	otection (submitted by INRS, France)		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to		☐ EN/prE	N:	Other:
Article:	Annex:	Clause:		
Key words:				
Earplugs, special use, ris	sk in water			
Question:				
	ed to protect hearing against the harmful effort the potential harmful effects of water in this			vimmers (particularly in
The question is:				
Are earplugs used in sw	imming pools kind of PPE?			
Solution:				
categorisation of person	n of PPE regulation (EU) 2016/425" (first edi al protective equipment (PPE)) that "earplug nst the regulation (EU) 2016/425 is therefore	s intended for	or swimmers to prevent water e	
	to certify the product in question against the ction of the middle ear against water while s			



PPE-R/04.040 Version 01

Number of pages: 1	Approval stage :	Approved on :
Origin: VG 4 Hearing protection (submitted by INRS, France)	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to ☐ PPE Regulation	⊠ EN/prEN: EN 352-7:2002	Other:
Article: Annex:	Clause: 4.1.4	
Key words:		
Earplugs, non-passive earplugs, special use, impulse noise		
Question:		
In which way shall the peak attenuation against very high level peak be tested?	noise of level-dependent earplugs without	electronic sound restoration
Solution:		
Note that EN 352-7:2003 does not cover the assessment of protection	on of earplugs against the risk of exposure	to high peak levels.
Measure the peak attenuation on a suitable ear simulator, using an a data characterising the equivalent external impulse sound field may be compared the exposure under an earplug to peak limit values specified	be not straightforward. Only those converte	



PPE-R/04.041 Version 01

Number of pages: 1	Approval stage : Approved on :
Origin: VG 4 Hearing protection (submitted by BGIA, Germany)	 ✓ Vertical Group ✓ Horizontal Committee ✓ EU PPE Working Group ✓ 21.04.2018 ✓ 29.11.2019
Question related to PPE Regulation	☑ EN/prEN: EN 352-6:2002 ☐ Other:
Article: Annex: (Clause: Annex B
Key words:	
Calculation of mean electrical input level, earmuffs with electrical audio	input
Question:	
Annex B of EN 352-6 asks for the calculation of the electrical input level weighted diffuse-field related sound pressure level of all sixteen ears is	
The procedure to find the mean value is not specified. How should the	mean electrical input level be determined?
Solution:	
Corresponding to the calculation of the criterion levels in EN 352-4 the	
Determine, by interpolation where necessary, the electrical input level level under the earmuff is equal to 82 dB for each of the 16 ears and the standard deviation.	



PPE-R/04.042 Version 01

Number of pages: 1	Approval stage :	Approved on :
Origin : VG 4 Hearing protection (submitted by BGIA, Germany)	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to PPE Regulation	☑ EN/prEN: EN 352-2:2002	☐ Other:
Article: Annex: II, 1.3.1	Clause:	
Key words:		
Banded earplugs worn under the chin, test dimension for sizing		
Question: EN 352-2:2002 specifies only dimensions for "over the head and und tested in case they are especially designed for only "under the chin"? heights shall be required as minimum?		
Solution: An additional specification for "under the chin" banded earplugs is ne Use the heads specified in EN 13819-1, figure 11 and add the followi Head A (width 125 mm): 95 mm and 110 mm (chin) Head B (width 145 mm): 90 mm, 105 and 115 mm (chin) Head C (width 155 mm): 105 mm and 115 mm (chin) Head A represents dimensions relevant for the test for the 5th percent for the 95th percentile of males. Anthropometric data used were collect Konstruktionsrichtlinien, Band 3; Stand: 1989, Zweite, überarbeitete te Wehrtechnik und Beschaffung, Koblenz, Carl Hanser Verlag, Münche	ng test dimensions for the test height (hori tile of females and head C represents dime cted in "Handbuch der Ergonomie mit ergo und erweiterte Auflage, herausgegeben vo	ensions relevant for the test nomischen



PPE-R/04.043 Version 01

Number of pages: 1	Approval stage : Approved on :	
Origin: VG 4 Hearing protection (submitted by BGIA, Germany)	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group✓ 29.11.2019	
Question related to	☑ EN/prEN: EN 352-2:2002 ☐ Other:	
Article: Annex: II, 2.9	Clause: 6.2	
Key words:		
Banded earplugs, exchange of plugs of banded earplugs		
Question:		
EN 352-2 does not require a description on exchange of plugs of bar does for the exchange of cushions of earmuffs.	nded earplugs to be included within the user instruction as EN 35	52-1
Solution: The manufacturer shall add a description on how to exchange plugs exchange sets for that banded earplugs.	of banded earplugs to the wearer information in case he provide	·S



PPE-R/04.044 Version 01

Number of pages: 1	Approval stage :	Approved on :
Origin: VG 4 Hearing protection (submitted by BGIA, Germany)	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to PPE Regulation	☑ EN/prEN: EN 352-6:2002	☐ Other:
Article: Annex: II, 1.2	Clause: 4.2	
Key words:		
Earmuffs with electrical audio input, electrical safety		
Question:		
For earmuffs with electrical audio input, EN 352-6, clause 4.2 requires and EMC requirements appropriate to this class of equipment." Which requirement given in EN 352-6, clause 4.2 is fulfilled?		
Solution:	CCN/TC 150/M/C 2 on 2005 11 15 in Lon	don was "The electrical
The change on EN 352-6, clause 4.2 agreed on within the meeting of circuit of the earmuff shall meet the appropriate electrical safety and E appropriate (like that one for "suitable constituent materials").		



PPE-R/04.045 Version 01

RECOMMENDATION FOR USE

Number of pages: 1	Approval stage : Approved on :
Origin: VG 4 Hearing protection (submitted by BGIA, Germany)	 ✓ Vertical Group ✓ Horizontal Committee ✓ EU PPE Working Group ✓ 21.04.2018 ✓ 29.11.2019
Question related to ☐ PPE Regulation ☐ E	N/prEN: EN 352-2:2002
Article: Annex: II, 3.5, III m) Claus	Se:
Key words:	
Additional check of protective function, custom moulded earplugs, leakage	
Question:	
For production of custom moulded earplugs individual imprints of the user's on this imprint the final PPE is produced by the manufacturer in his premise which results in a significant underprotection as studies showed. How can requirement of the regulation (EU) 2016/425 be tested?	es. About 5 % of custom moulded earplugs show a leakage
Solution:	
The number of cases, where leakage was found, can only by decreased, b preparation of the imprint (duration is several minutes) can not completely canal - e.g. by decreasing of ear canal diameter – the imprint will become to significant and unknown reduction of the protective function. The user can do using foam plugs. To guarantee the protective function as specified the user's ear canal by the manufacturer. There are techniques available using microphone. During EU type examination such a test has to be applied by the described by the manufacturer, see Annex III m) of the PPE regulation. The body during the EU type examination.	be avoided and such a tension can change the shape of the ear oo small. The final product will show a leakage and in turn a not compensate the leakage by e.g. deeper insertion as he can only solution is to perform a final check of the function at the e.g. little overpressure or loudspeakers and a probe the manufacturer as well as the test equipment has to be

Status: February 2024



PPE-R/04.049 Version 01

RECOMMENDATION FOR USE

Approval stage :	Approved on :		
✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019		
SEN/prEN: EN 352-6:2002	☐ Other:		
lause:			
EN 352-6 uses MIRE technique to determine the dependence between the sound level at the ear of the user and the input voltage. Since test subjects are used the maximum level to be reached is 85 dB(A) (diffuse-field corrected). For safety-related communication higher levels may be necessary during work. In order to be able to assess the total sound exposure the user has to know if the product behaves linearily for higher input voltages and if it possible to extrapolate the MIRE data. How can the necessary additional data be determined and communicated in the user information?			
f	Vertical Group Horizontal Committee EU PPE Working Group Sen/pren: EN 352-6:2002 Ause: the sound level at the ear of the user are fuse-field corrected). For safety-related bund exposure the user has to know if the sound exposure the user has the sound exposure		

Solution:

The product (all four samples – eight cups) shall be measured with signal input on an ATF (HATS with a coupler according to EN 60318-4:2010) starting with the voltage that resulted in a level of 70 dB(A) with the test subjects. The manufacturer is to be asked for the maximum allowed input voltage. The voltage shall be increased in 5 dB steps up to a diffuse-field corrected value at the ATF of 120 dB(A) or saturation of the signal (or up to the maximum input voltage).

Since the sound levels will typically not be identical to the MIRE results the curve has to be shifted to match the MIRE results for the range where both curves overlap using the following procedure:

- Use the calculation procedure for the criterion voltage (according to RfU 04.041 (latest published online version)) to determine from the MIRE data the input voltage that results in an SPL of 85 dB(A) (diffuse-field corrected).
- For that purpose interpolate for each of the 16 ears the voltage value that results in 85 dB(A). Mean minus standard deviation for the 16 values gives the required voltage, U₈₅.
- Measure all four samples (eight data sets) on the ATF and calculate the mean over the eight values for each input voltage.
- The mean of the values measured on the ATF will probably not contain a data point with the voltage value of U₈₅, therefore determine this point by interpolation.
- Determine the difference between MIRE and ATF values at U₈₅.
- Shift the whole ATF mean curve by this offset.

The combined data from MIRE and ATF shall be presented in the user information as a table (dB SPL vs. U in mV). If a graphical interpolation is wished for the data have to be plotted with a logarithmically spaced voltage axis. To display the whole range of input voltages apply RfU 04.041 (latest published online version) to the MIRE data to get the corresponding voltage values for 70, 75 and 80 dB(A). Moreover the maximum allowed input voltage is to be stated in the user information.



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Version 2

* * *	NDATION FOR USE	
Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 4	 ✓ Vertical Group ✓ Horizontal Committee ✓ EU PPE Expert Group 	20.05.2021 01.10.2021 18.11.2022
Question related to PPE Regulation PPE Guidelines	⊠ EN/prEN: : EN 352-5:2002 + A1:2005	☐ Other:
Article: Annex:	Clause: 6.1 c) and Annex B	
Key words: Hearing protectors with active noise control		
Question:		
EN 352-5 does not clearly specify the procedure to calculate the user information is not required to contain the total attenuation, the total sound attenuation be calculated and what attenuation attenuation attenuation at the calculated attenuation attenuation at the calculated attenuation attenuation at the calculated attenuation at the calculated attenuation at the calculated attenuation at the calculated attenuation attenuation at the calculated attenuation attenuation at the calculated attenuation at the calculated attenuation at the calculated attenuation at the calculated attenuation attenuation at the calculated attenuation attenuation at the calculated attenuation at the calculated attenuation at the calculated attenuation at the calculated attenuation attenuation at the calculated attenuation at the calculated	only the active values.	
Solution:		
Aim is the calculation of the assumed protection value (APV) of attenuation measured according to EN 352-5, Annex B and the		
1. Calculate the mean and standard deviation of the active attermeasured according to chapter 5.2/Annex B of EN 352-5. 2. Interpolate the subjective REAT data (from 16 test subjects at bands between 63 Hz and 8 kHz for mean and SD. Extrapolate	according to EN ISO 4869-1:2018) linearly in one	

- 3. Add the mean values of the two contributions (active and passive) to get the mean of the total attenuation for each one-thirdoctave band.
- 4. Average the three one-third- octave bands of total attenuation for one octave band (between 63 Hz and 8 kHz) energetically (using negative values, i.e. the residual level under the HPD). The lowest attenuation has the highest weight for the end result. This yields the mean of the total attenuation in octave bands.
- 5. Sum the standard deviation of passive and active attenuation quadratically for one-third-octave bands between 50 Hz and 10 kHz.
- 6. Average the three standard deviation values for one octave band (between 63 Hz and 8 kHz) energetically using positive values, i.e. the highest value has the highest weight for the end result. This yields the standard deviation of the total attenuation in octave bands.
- 7. Calculate the APV for each octave band by subtracting the standard deviation from the mean of the total attenuation.

$$APV_{tot} = m_{tot} - s_{tot}$$

Content of the user information (6.1 c):

The user information shall contain the mean, standard deviation and APV between 63 Hz and 8 kHz for the total attenuation together with the derived HML and SNR values.



PPE-R/04.051
Version 01

Number of pages: 1	Approval stage :	Approved on :
Origin: VG 4 Hearing protection (submitted by IFA, Germany)	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to PPE Regulation	EN/prEN: EN 13819-2:2002	Other:
Article: Annex: Clau	use: 5.4	
Key words:		
Drop test for earplugs		
Question:		
How many samples should be used for the drop test of earplugs according	g to EN 13819-2, clause 5.4?	
Calufform		
Solution: All samples that are going to be used for the REAT testing with 16 test substitutions.	biects should be used for the drop test	
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PPE-R/04.052 Version 01

Number of pages: 1			Approval stage :	Approved on :
Origin : VG 4 Hearing p	protection (submitted by IFA, Germany)		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: EN 352-6:2002	☐ Other:
Article:	Annex:	Clause: 6		
Key words:				
Hearing protectors for	safety-related communication, user informatio	n		
Question:				
How can it be ensured purposes?	that hearing protectors for safety-related com	nmunication	(that do not contain a limiter) ar	e not used for entertainment
Solution:				
An additional warning i	in the user information should be included that	t reads:		
"This product may not	be used for entertainment since the output lev	el is not limi	ited to the necessary innocuous	s level."



PPE-R/04.054 Version 01

RECOMMENDATION FOR USE

Number of	of pages: 1	A	pproval stage :	Approved on :		
Origin : V	'G4 Hearing Protection		Horizontal Committee	24.11.2017 18.07.2018 05.11.2018		
Question	related to PPE Regulation	⊠ EN/prEN:	EN ISO 4869-1 + -2	☐ Other:		
Article:	Annex:	Clause:				
17						
Key word	IS:					
Sound at	tenuation, decimal place, APV					
Question	:					
1.	1. With which precision (how many decimal places) is the sound attenuation of an individual test subject measured in accordance with EN ISO 4869-1 to be declared in the test report and used for further calculation?					
2.	·					
3.	With which precision (how many decimal places) are the hinformation?	IML and SNR v	values to be declared in the te	est report and user		

Solution:

1. Rounded to the nearest integer.

Explanation: For the determination of the hearing threshold, EN ISO 4869-1 refers in clause 4.5.5 to (EN) ISO 8253-2. This standard refers in clause 8.1 to (EN) ISO 8253-1. That standard (EN ISO 8253-1:2010) in turn deals in clause 6 with (a) the manually controlled threshold determination (6.2), (b) the threshold determination with an automatic recording audiometer (6.3) and (c) the computer-controlled threshold determination (6.4). When manually controlled audiometers are used with the bracketing method (6.2.4.3) the levels at which a response occurs are averaged for ascents and descents separately for each frequency and ear and the arithmetic mean of these two results is rounded to the next 5 dB step. For automatic recording audiometers (clause 6.3.5) minimum and maximum values of the recording are each averaged for each frequency and ear. The arithmetic mean of these two results is calculated and this value, rounded to the nearest integer in dB, is defined as the hearing threshold level of the ear at the given frequency. Further, computer-controlled audiometers have to provide hearing thresholds that are in accordance with the other procedures of EN ISO 8253-1. Concluding, all hearing thresholds according to EN ISO 8352-1 have to be integer values and sound attenuation values with decimal places are thus not in accordance with EN ISO 4869-1.

2. One decimal place.

<u>Explanation</u>: EN ISO 4869-2 uses in all examples one decimal place for the mean and standard deviation. From these two quantities, the APV results also with one decimal place. If for mean and standard deviation more decimal places are used for the calculation, but not declared in the test report, discrepancies with the APV can result (differences of 0.1 dB due to rounding). This is not in accordance with the definition of the APV given in EN ISO 4869-2.

3. Rounded to the nearest integer.

<u>Explanation:</u> EN ISO 4869-2 clearly states in clause 7.1 (HML values) and 8.1 (SNR value) that the resulting values shall be rounded to the nearest integer.



PPE-R/04.055 Version 01

RECOMMENDATION FOR USE

Number of pages: 1		Approval	stage :	Approved on :	
Origin: VG4 Hearing	Protection	☐ Horiz	cal Group contal Committee PPE Working Group	02.10.2017 18.07.2018 05.11.2018	
Question related to		⊠ EN/prEN: prEN 1	3819-3:2016	Other:	
Article:	Annex: II, 3.5	Clause: 7.4			
Key words:					
Hearing protectors wit	h Bluetooth® facilities				
Question:					

With regard to prEN 13819-3:2016:

- 4. If a hearing protector with Bluetooth® facilities offers profiles for safety-related communication (e.g. HSP Headset Profile) as well as for entertainment (e.g. A2DP Advanced Audio Distribution Profile) which tests are to be performed?
- 5. If the manufacturer specifies for an entertainment hearing protector a maximum input level below -10 dB FS which test signal levels are to be used?
- 6. If a hearing protector that is tested as an entertainment product exceeds the sound level of 82 dB(A) for the test signal with the highest level (- 10 dB FS) how can this product be certified?
- 7. If a hearing protector for safety-related communication (with a corresponding Bluetooth® profile) does not exceed a sound level of 82 dB(A) for the test signal with the highest level (-14 dB FS)
 - a. can this product be certified for safety-related communication?
 - b. is this product also suitable for entertainment?

Solution:

- 4. The tests of both safety-related communication according to clause 7.4.1.1.1 and 7.4.1.1.2 of prEN 13819-3:2016 and of entertainment according to clause 7.4.1.1.3 of prEN 13819-3:2016 have to be performed and the corresponding requirements applied.
- 5. In all cases, the highest test signal level of -10 dB FS is to be used.
- The product cannot be certified as an entertainment product. It is not recommended to certify the product as a hearing protector for safety-related communication, but to require changes in the dependence of the sound pressure level on the input signal level or a deactivation of the Bluetooth® entertainment profile(s).

 Background: Some devices like smartphones select and apply Bluetooth® profiles autonomously depending on the kind of signal
 - to be transmitted (e.g. music vs. telephone calls). The user has no influence on the choice of the profile. Therefore, a specific Bluetooth® profile of a HPD should have the characteristics it is designed for either entertainment or communication.

7.

- a. The hearing protector can be certified for safety-related communication even if the sound level of 82 dB(A) for the criterion level is not reached. The highest sound level (measured for the test signal with -14 dB FS) has to be declared, together with the signal level, in the test report and the user information.
- b. The hearing protector should not be tested and certified as an entertainment product since the profile under question is not designed for entertainment.



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Version 1

RECOMMENDATION FOR USE

Number of pages: 1		Approval stage :	Approved on :				
Origin : Vertical Gro	up 4		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	20.05.2021 01.10.2021 18.11.2022			
Question related to	□ PPE Regulation □ PPE Guidelines	⊠ EN/prE	: N: : EN 352-2:2002	☐ Other:			
Article:	Annex: II, 3.5	Clause: 6.	2				
Key words: Earplugs for children	n, user information						
Question:							
The requirement standard for earplugs EN 352-2:2002 is not explicitly limited to a certain age of the earplug users. The nominal size designation for aural earplugs is tested in the range between 5 and 14 mm.							
What requirements should be applied to the user information for earplugs that are specially designed and marketed for children?							
Solution:							
Additional instruction	ons and information for the parents should be inc	uded:					
feedback	 A warning that use of the earplugs is not suitable for children younger that five years of age since they are not able to give feedback on the quality of the fit (leakage, pain) to the adult inserting the earplug. Also other persons who are not able to give feedback (e.g. handicapped persons) should be excluded from using the product. 						

- A description how to fit the earplugs to the ears of the child correctly.
- A description how to remove the earplugs from the ears of the child.
- A warning to check and make sure that the earplugs are worn correctly and continuously by the child.
- A warning that the time a child stays in a noise area should be minimised.
- A warning that excessive usage time can have adverse long term effects, e.g. due to the pressure in the earcanal; a recommendation for a usage time of approximately 90 min without break and approximately 3 h per day in total.

Status: February 2024



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Version 1

	RECOMMEN	DATION FOR USE	
Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Grou	ıp 4	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	03/03/2023 31/05/2023 31/01/2024
Question related to	☐ PPE Regulation ☐ PPE Guidelines	☑ EN/prEN: EN 352-2:2020	☑ Other: RfU 04.045
Article:	Annex: II, 3.5	Clause: 4.2.2.5	
Key words: Custom moulded ea	rplugs, individual fit test by the customer itsel	lf	
engineers in the con the manufacturer.		stems that can be used by the customers of the in use. The individual tests are then performed	
See RfU 04.045 for	Ifil the requirements listed below, assessed be reference on fit tests for custom moulded early for guidance on the application of individual to	plugs.	



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Version 1

Number of pages: 1	Approval stage :	Approved on :
Origin: Vertical Group 4	✓ Vertical Group✓ Horizontal Commi✓ EU PPE Expert G	
Question related to PPE Regulation PPE Guidelines	☑ EN/prEN: EN 352-3-2020	☐ Other:
Article: Annex: C	lause:	
Key words: mounted earmuffs, earmuffs attached to head protection and/or face pr	otection devices, package inforn	nation, labelling, size range, warning
Question:		
The standard EN 352-3 states in chapter 6 for user Information, that: "n following statement: 1) On packaging/box "Warning: Small size range of information."		
If basic and supplementary combinations differ in size ranges, which we combination is size L only, and supplementary sizes vary (including M).		box? For example, basic
Solution:		
The standard does not clearly state what combinations the warning refet L size ranges in any of the combinations, basic or supplementary. Thus "Warning: Small size range or large size range (as appropriate) earmuf Or "Warning: Small size range or large size range (as appropriate) earmuf size. Refer to user information."	s, the text could be for example (fs, certain combinations. Refer to	as appropriate): o user information."



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Version 1

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 4	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	07/07/2022 31/05/2023 31/01/2024
Question related to PPE Regulation PPE Guidelines	rEN: EN 13819-2:2020	Other:
Article: Annex: Clause:		
Key words:		
Under-the-chin banded earplugs, replacement of test subjects		
Question:		
EN 352-2:2020 refers to Table 7 of EN 13819-1:2020 for the sizing of under-tridepth given in this table, are too small to model the head sizes of a normal podoes not fit for some test subjects.		
What protocol should be followed for testing according to EN 13819-2:2020, c small for a test subject?	ause 4.2 (sound attenuation) if a	given banded earplug is too
Solution:		
A similar approach as for mounted earmuffs (see clause 4.2.3.7 of EN 13819-earplugs. The experimenter should ask each test subject if the specimen fits. I subject should be rejected from the panel and a replacement for him/her shou	f it does fit, the test can be perfore	
Remark: It is discussed to revise EN 352-2:2020 and EN 13819-1:2020 and to under-the-chin banded earplugs.	add a table with the values of Rfl	U 04.042 especially adapted

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 5 "Protective Clothing, Hand and Arm Protection" of the European Coordination of Notified Bodies in the field of Personal Protective Equipment (PPE)

Regulation (EU) 2016/425

Number of	Sheet	Version	Reference	Keywords	Approved by	Approved by	Endorsed by
RfU	number	• • • • • • • • • • • • • • • • • • •	norer ende	ney ir er us	Vertical	Horizontal	PPE Expert
PPE-R/	iidiiibei				Group 5	Committee	Group
General	21-014	01	EN ISO	Innocuousness, azo	28-8-2019	30-9-2019	7-2-2020
Ochiciai	21014	01	13688:2013 (4.2)	colourants	20 0 2013	30 3 2013	7 2 2020
General	20-003	01	EN ISO	Comfort, practical	28-8-2019	30-9-2019	7-2-2020
0 01101011			13688:2013	performance		00020.0	
General	20-010	01	EN 13911:2004	Fire hoods, practical	28-8-2019	30-9-2019	7-2-2020
				performance test			
General	32-004	01	EN 13911:2004 / EN 13911:2017	Categorization	28-8-2019	30-9-2019	7-2-2020
General	<u>20-016</u>		EN 14877:2002	Abrasive blasting; categorization	28-8-2019	30-9-2019	7-2-2020
General	<u>05.031</u>	01		Optional clauses	28-8-2019	30-9-2019	7-2-2020
General	<u>05.105</u>	01		Categorization; working garments	28-8-2019	30-9-2019	7-2-2020
General	05.230	01		Water vapour resistance	28-8-2019	30-9-2019	7-2-2020
General	05.289	01		Dimensional change; seams	28-8-2019	30-9-2019	7-2-2020
General	05.292	01		Combination of PPE	28-8-2019	30-9-2019	7-2-2020
General	<u>05.355</u>	01		Reference to standards	28-8-2019	30-9-2019	7-2-2020
General	<u>17-007</u>	01		Categorization; combination of properties	28-8-2019	30-9-2019	7-2-2020
General	<u>19-013</u>	01		Draft standards	28-8-2019	30-9-2019	7-2-2020
General	<u>23-011</u>	01		Examination of models	28-8-2019	30-9-2019	7-2-2020
General	<u>25-003</u>	01	EN 530 / EN ISO 12947-2	Abrasion	28-8-2019	30-9-2019	7-2-2020
General	<u>30-003</u>	01		Validity of test reports	28-8-2019	30-9-2019	7-2-2020
General	30-007	01		Pretreatment; drying procedures	28-8-2019	30-9-2019	7-2-2020
General	30-009	01		Module C2 schedule; Module B renewal	28-8-2019	30-9-2019	7-2-2020
General	32-012	01		Symbols, date of obsolescence, date of manufacture, marking	28-8-2019	30-9-2019	7-2-2020
1.0.1	04.000	0.4			00.0.0040	00.0.0040	7.0.000
High Visibility	31-008	01		Harnesses	28-8-2019	30-9-2019	7-2-2020
High Visibility	05.181		EN 471: 2003 (4.1) / EN ISO 20471: 2013 (4.1)	Classification; Jacket with removable sleeves	28-8-2019	30-9-2019	7-2-2020
High Visibility	05.341	01	EN 471: 2003 (4.1, 5.1) / EN ISO 20471: 2013 (4.1, 5.1)	Classification; perforated materials	28-8-2019	30-9-2019	7-2-2020
High Visibility	05.116	01	EN 471: 2003 (4.1) / EN ISO 20471: 2013 (4.1)	Classification; combined performance materials	28-8-2019	30-9-2019	7-2-2020
High Visibility	28-009	01	EN ISO 20471: 2013 (4.1)	Minimum area	28-8-2019	30-9-2019	7-2-2020
High Visibility	29-012	01	EN ISO 20471: 2013 (4.1)	Combined performance material; class	28-8-2019	30-9-2019	7-2-2020
High	34-009	01	EN ISO 20471:	Background; encircle	28-8-2019	30-9-2019	7-2-2020

Number of	Sheet	Version	Reference	Keywords	Approved by	Approved by	Endorsed by
RfU	number				Vertical	Horizontal	PPE Expert
PPE-R/			0040 (4.4.4.0)		Group 5	Committee	Group
Visibility	05.040	04	2013 (4.1, 4.2)	Decimal retravelle etime	20.0.2040	30-9-2019	7.0.0000
High Visibility	05.346	01	EN 471: 2003 (4.2) / EN ISO 20471: 2013 (4.2)	Design; retroreflective; patterns	28-8-2019		7-2-2020
High Visibility	<u>29-008</u>	01	EN ISO 20471: 2013 (4.2.1, 4.2.2)	Background; interruptions	28-8-2019	30-9-2019	7-2-2020
High Visibility	<u>29-010</u>	01	EN ISO 20471: 2013 (4.2.1, 4.2.2)	Retroreflective bands; shoulders	28-8-2019	30-9-2019	7-2-2020
High Visibility	34-011	01	EN ISO 20471: 2013 (4.2.2)	Design; sleeve; torso.	28-8-2019	30-9-2019	7-2-2020
High Visibility	<u>29-001</u>	01	EN ISO 20471: 2013 (4.2.3)	waist; bib and brace	28-8-2019	30-9-2019	7-2-2020
High Visibility	28-008	01	EN ISO 20471: 2013 (5)	Acceptance of EN 471 test report	28-8-2019	30-9-2019	7-2-2020
High Visibility	30-001	01	EN ISO 20471: 2013 (5.3)	Colour fastness; trimmings	28-8-2019	30-9-2019	7-2-2020
High Visibility	<u>29-018</u>	01	EN ISO 20471: 2013 (5.3.3)	Colour fastness; hot pressing	28-8-2019	30-9-2019	7-2-2020
High Visibility	23-001	01	EN 471: 2003 (6) / EN ISO 20471: 2013 (6)	Segmented retroreflective tapes	28-8-2019	30-9-2019	7-2-2020
High Visibility	17-004	01	EN 471: 2003 (6.2) / EN ISO 20471: 2013 (6.2)	Washing, maximum number of cycles	28-8-2019	30-9-2019	7-2-2020
High Visibility	29-017	01	ÈN ISO 20471: 2013 (6.2.1)	Retroreflective; washing	28-8-2019	30-9-2019	7-2-2020
High Visibility	<u>19-001</u>	01	EN 13356: 2001 (5.2.2)	Reflective; measurement	28-8-2019	30-9-2019	7-2-2020
High Visibility	<u>21-015</u>	01	EN 13356 / EN 1150	High visibility accessories, cape for horse riders	28-8-2019	30-9-2019	7-2-2020
High Visibility	21-004	01	EN 13356	High visibility accessories, minimum area	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	24-007	01	EN ISO 11612:2015	Categorization	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	22-018	01	EN ISO 11612:2015	Categorization	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	05.229	01	EN ISO 11612:2015 (1)	Visors	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	24-019 r2	01	EN ISO 11612:2015 (4.2.2)	Suits; single garments	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	31-002	01	EN ISO 11612:2015 (4.2.2)	Quick-release fastenings	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	24-018	01	EN ISO 11612:2015 (4.3)	Pockets; flame spread	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	05.308	01	EN ISO 11612:2015 (4.5)	Molten metal design; Pockets	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	05.314	01	EN ISO 11612:2015 (4.5)	Molten metal design; Pockets	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	05.354	01	EN ISO 11612:2015 (4.5)	Molten metal design; Pockets	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	<u>29-014</u>	01	EN ISO 11612:2015	Design; pockets	28-8-2019	30-9-2019	7-2-2020

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EN ISO	20.016	01	(4.5b) EN ISO	Docian: poekete	28-8-2019	30-9-2019	7-2-2020
11612	<u>29-016</u>	01	11612:2015	Design; pockets	20-0-2019	30-9-2019	7-2-2020
11012			(4.5b)				
EN ISO	30-002	01	EN ISO	Design; pockets	28-8-2019	30-9-2019	7-2-2020
11612	00 002		11612:2015	Beelgn, peckete	20 0 2010	00 0 2010	, 2 2020
			(4.5b)				
EN ISO	23-010	01	EN ISO	Molten metal design;	28-8-2019	30-9-2019	7-2-2020
11612			11612:2015	overlapping seams			
			(4.5d)				
EN ISO	<u>29-015</u>	01	EN ISO	Design; closures	28-8-2019	30-9-2019	7-2-2020
11612			11612:2015				
			(4.5e)				
EN ISO	<u>18-009</u>	01	EN ISO	Molten metal design; Zips	28-8-2019	30-9-2019	7-2-2020
11612	07.04.4	0.4	11612:2015 (4.5)	Made a sector de la companya de la c	00.0.0040	00.0.0040	7.0.0000
EN ISO 11612	<u>27-014</u>	01	EN ISO	Molten metal design,	28-8-2019	30-9-2019	7-2-2020
EN ISO	25-011	01	11612:2015 (4.5) EN ISO	closures, cover flap Pre-treatment of material	28-8-2019	30-9-2019	7-2-2020
11612	25-011	01	11612:2015	Pre-treatment of material	20-0-2019	30-9-2019	7-2-2020
11012			(5.2.1; 5.2.3)				
EN ISO	23-018	01	EN ISO	Flame spread; cleaning	28-8-2019	30-9-2019	7-2-2020
11612			11612:2015 (5.2)	l iaine spread, eleaining	20020.0	00020.0	
EN ISO	05.334	01	EN 469: 2005	Pretreatment; flame spread	28-8-2019	30-9-2019	7-2-2020
11612			(5.2)				
EN ISO	<u> 26-</u>	01	EN ISO	Heat resistance;	28-8-2019	30-9-2019	7-2-2020
11612	<u>006b</u>		11612:2015 (6.2)	accessories; hardware			
EN ISO	<u>27-004</u>	01	EN ISO	Heat resistance; hardware	28-8-2019	30-9-2019	7-2-2020
11612			11612:2015				
ENLIGO	00.000	0.4	(6.2.1)		00.0.0040	00.0.0040	7.0.000
EN ISO	<u>29-023</u>	01	EN ISO 11612:2015	Heat Resistance; shrinkage	28-8-2019	30-9-2019	7-2-2020
11612			(6.2.1)				
EN ISO	24-020	01	EN ISO	Multilayer garments	28-8-2019	30-9-2019	7-2-2020
11612	24 020	01	11612:2015	Watthayer garments	20 0 2013	30 3 2013	7 2 2020
11012			(6.3.2.2)				
EN ISO	29-004	01	EN ISO	Hole formation; outer layer	28-8-2019	30-9-2019	7-2-2020
11612			11612:2015	,			
			(6.3.2.2)				
EN ISO	30-006	01	EN ISO	Multilayer; Limited flame	28-8-2019	30-9-2019	7-2-2020
11612			11612:2015	spread; Heat transmission			
ENLIGO	00	0.4	(6.3.2.2)	Flores and a large	00.0.0010	00.0.0010	7.0.0000
EN ISO 11612	<u>26-</u> 006a	01	EN ISO 11612:2015	Flame spread; seams; accessories; hardware	28-8-2019	30-9-2019	7-2-2020
11012	<u>006a</u>		(6.3.2)	accessories, nardware			
EN ISO	30-004	01	EN ISO	Flammability behaviour;	28-8-2019	30-9-2019	7-2-2020
11612	30 004	01	11612:2015	hardware	20 0 2013	30 3 2013	7 2 2020
			(6.3.2.3)				
EN ISO	25-006	01	EN ISO	Flammability behaviour;	28-8-2019	30-9-2019	7-2-2020
11612			11612:2015	embroidery			
			(6.3.2.4)				
EN ISO	<u>27-009</u>	01	EN ISO	Flammability behaviour;	28-8-2019	30-9-2019	7-2-2020
11612			11612:2015	transfer logos			
ENTICO	24.040	04	(6.3.2.4)	Flower oproads have a service	20.0.0040	20.0.2040	7.0.0000
EN ISO 11612	<u>24-013</u>	01	EN ISO 11612:2015	Flame spread; hems; seams	28-8-2019	30-9-2019	7-2-2020
11012			(6.3.3.1)				
EN ISO	26-008	01		Seam strength	28-8-2019	30-9-2019	7-2-2020
		"		- Cam Guerigui	2002010	00 0 2010	
			(6.5.4)				
EN ISO 11612	26-008	01	EN ISO 11612:2015 (6.5.4)	Seam strength	28-8-2019	30-9-2019	7-2-2020

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EN ISO	27-003	01	EN ISO	Heat transfer; assembly;	28-8-2019	30-9-2019	7-2-2020
11612	21 000		11612:2015 (7.2; 7.3)	interlining	20 0 2010	00 0 2010	1 2 2020
EN ISO 11612	34-014	01	EN 407: 2004 (5.4)	Radiant heat level	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	<u>26-015</u>	01	EN ISO 11612:2015 (7.4; 7.5) / ISO 9185	Molten metal splashes test	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	30-008	01	EN ISO 11612:2015 (7.5)	Molten metal splashes test; Retroreflective	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	31-003	01	EN ISO 11612:2015 (Annex B)	Second set of specimens	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	05.292	01		Combination of PPE	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	24-028	01	EN ISO 11611: 2007 (4.1)	Single garments	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	24-029	01	EN ISO 11611: 2007 (4.1)	Additional protective clothing	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	<u>26-016</u>	01	EN ISO 11611: 2007 (4.1)	Short sleeves; short trousers	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	05.335	01	EN 470-1: 1995 (4.1) EN ISO 11611: 2007 (4.1)	Design	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	<u>24-003</u>	01	EN ISO 11611: 2007 (4.1.1)	Design; neck; collar	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	<u>29-016</u>	01	EN ISO 11612:2015 (4.5b)	Design; pockets	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	<u>29-014</u>	01	EN ISO 11612:2015 (4.5b)	Design; pockets	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	<u>29-015</u>	01	EN ISO 11612:2015 (4.5e)	Design; closures	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	<u>23-018</u>	01	EN ISO 11612:2015 (5.2)	Flame spread; cleaning	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	05.334	01	EN 469: 2005 (5.2)	Pretreatment; flame spread	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	<u>26-008</u>	01	EN ISO 11612:2015 (6.5.4)	Seam strength	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	24-013	01	EN ISO 11612:2015 (6.3.3.1)	Flame spread; hems; seams	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	<u>26-006</u>	01	EN ISO 11611: 2007 (6.7)	Flame spread; seams; accessories; hardware	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	<u>25-002</u>	01	EN ISO 11611: 2007 (6.9)	Heat transfer, multi-layers	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	34-014	01	EN 407: 2004 (5.4)	Radiant heat level	28-8-2019	30-9-2019	7-2-2020
EN 469	<u>17-015</u>	01	ÈN 469: 2005 (1)	Certification, separate clothing items	28-8-2019	30-9-2019	7-2-2020
EN 469	05.157 <u>b</u>	01	EN 469: 1995 (4.6)	Closure systems	28-8-2019	30-9-2019	7-2-2020
EN 469	05.328	01	EN 469: 2005 (4.3)	Neck protection	28-8-2019	30-9-2019	7-2-2020
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EN 469	<u>05-157</u>	01	EN 469: 2005 (6.1)	Badges, logos	28-8-2019	30-9-2019	7-2-2020
EN 469	05.352	01	EN 469: 2005 (6.1)	Embroideries	28-8-2019	30-9-2019	7-2-2020
EN 469	<u>21-013</u>	01	EN 469: 2005 (6.1.6)	Hardware; flame spread	28-8-2019	30-9-2019	7-2-2020
EN 469	22-001	01	EN 469: 2005 (6.1, 5.3)	Flame spread, materials, component assembly	28-8-2019	30-9-2019	7-2-2020
EN 469	22-003	01	EN 469: 2005 (6.1, 6.5, 3)	Flame spread, materials, hardware, braces	28-8-2019	30-9-2019	7-2-2020
EN 469	22-002	01	EN 469: 2005 (6.5, 5.3)	Heat resistance, materials, clothing assembly	28-8-2019	30-9-2019	7-2-2020
EN 469	<u>28-005</u>	01	EN 469: 2005 (6.7)	Tear strength	28-8-2019	30-9-2019	7-2-2020
EN 469	05.061	01	EN 469: 1995 (7.5) EN 469: 2005 (6.10)	Liquid penetration	28-8-2019	30-9-2019	7-2-2020
EN 469	23-020	01	EN 469: 2005 (6.14)	Fluorescent material	28-8-2019	30-9-2019	7-2-2020
EN 469	<u>25-001</u>	01	EN 469: 2005 (6.14, Annex B);	Retroreflective; fluorescent; minimum area	28-8-2019	30-9-2019	7-2-2020
EN 469	22-004	01	EN 469: 2005 (7.4.2)	Heat protection; marking	28-8-2019	30-9-2019	7-2-2020
EN 469	<u>25-007</u>	01	EN 469: 2005 (Annex B)	Retroreflective photometric performance	28-8-2019	30-9-2019	7-2-2020
EN ISO 14116	18-008	01	EN 533:1997 (4.1) / EN ISO 14116:2008 (4.1) / EN ISO 14116:2015 (4.1)	Index 1; skin contact	28-8-2019	30-9-2019	7-2-2020
EN ISO 14116	<u>26-006</u>	01	EN ISO 11611: 2007 (6.7)	Flame spread; seams; accessories; hardware	28-8-2019	30-9-2019	7-2-2020
Arc flash	<u>22-016</u>	01	CLC/TS 50354	Acceptance criteria	28-8-2019	30-9-2019	7-2-2020
EN ISO 9150	05.272	01		calorimeter	28-8-2019	30-9-2019	7-2-2020
EN ISO 9151	05.323	01	EN ISO 9151		28-8-2019	30-9-2019	7-2-2020
EN ISO 9185	29-013	01	EN ISO 9185:2007	Damage definition, PVC sensor	28-8-2019	30-9-2019	7-2-2020
EN ISO 15025	05.283	01	EN 532	Hole, flame-spread test	28-8-2019	30-9-2019	7-2-2020
CHEMICAL	05.042	01	EN 369 (5.2)	permeation, collecting medium	28-8-2019 28-8-2019	30-9-2019 30-9-2019	7-2-2020 7-2-2020
CHEMICAL	21-011	01	EN 1073-2 (4.2)	Radioactive contamination – puncture resistance	28-8-2019	30-9-2019	7-2-2020
CHEMICAL	05.351	01	EN 13034	Additional features	28-8-2019	30-9-2019	7-2-2020
CHEMICAL	27-012	01	EN 13034: 2005/A1: 2009 (4.1)	Penetration & repellency; FR treatments	28-8-2019	30-9-2019	7-2-2020
CHEMICAL	21-026	01	EN 13034 (4.2)	Chemical penetration, seams etc.	28-8-2019	30-9-2019	7-2-2020

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			2005/A1: 2009 (5.1)				
CHEMICAL	18-003	01	EN ISO 13982-1 (6e)	instructions for use; test results	28-8-2019	30-9-2019	7-2-2020
CHEMICAL	21-023	01	EN 14126 (4.1.4)	infective agents	28-8-2019	30-9-2019	7-2-2020
CHEMICAL	24-024	01	EN 14605: 2005	Face protection; User Information	28-8-2019	30-9-2019	7-2-2020
CHEMICAL	29-002	01	EN 14605: 2005 (4.1, 4.2)	Permeation; chemicals	28-8-2019	30-9-2019	7-2-2020
CHEMICAL	20-004	01	General	Abrasion, flex cracking, pressure pot	28-8-2019	30-9-2019	7-2-2020
CHEMICAL	05.318	01	General	Instructions for use	28-8-2019	30-9-2019	7-2-2020
CHEMICAL	05.158; 05.350	01	General	Pockets	28-8-2019	30-9-2019	7-2-2020
CHEMICAL	05.313	01	General	Repellency	28-8-2019	30-9-2019	7-2-2020
CHEMICAL	33-003	01	EN 14605: 2005/A1: 2009 / EN 13034: 2005/A1: 2009	Spray test; Jet test	28-8-2019	30-9-2019	7-2-2020
EN 388	17-011	01	General	Gloves without fingertip	28-8-2019	30-9-2019	7-2-2020
EN 388	05.125	01	General	performance levels	28-8-2019	30-9-2019	7-2-2020
EN 388	05.290 RFU 05.32- 003 r1	01	EN 388: 2016 (6.1)	Coated gloves, abrasion	28-8-2019	30-9-2019	7-2-2020
EN 388	32-003 r1	01	EN 388: 2016 (6.1.5.3)	Abrasion, layers	28-8-2019	30-9-2019	7-2-2020
EN 388	18-002	01	EN 388: 2016 (6.2.3)	Cut resistance	28-8-2019	30-9-2019	7-2-2020
EN 388	32-009	01	EN 388: 2016 (6.2.6)	Cut resistance	28-8-2019	30-9-2019	7-2-2020
EN 388	34-004	01	EN 388: 2016 (6.2.6)	Blade cut resistance	28-8-2019	30-9-2019	7-2-2020
EN 388	34-003	01	EN 388: 2016 (6.2, 6.3)	Blade cut resistance	28-8-2019	30-9-2019	7-2-2020
EN 388	05.264	01	EN 388: 2016 (6.4)	Tear strength	28-8-2019	30-9-2019	7-2-2020
EN 388	22-010	01	EN 388: 2016	Mechanical protection	28-8-2019	30-9-2019	7-2-2020
EN 388	27-001	01	EN 388: 2016	Leather; description; thickness	28-8-2019	30-9-2019	7-2-2020
EN 388	<u>27-005</u>	01	EN 388: 2016 (7,8)	Marking, Information	28-8-2019	30-9-2019	7-2-2020
EN 374	26-012	01	EN ISO 374-1: 2016	Marking	28-8-2019	30-9-2019	7-2-2020
EN 374	28-003	01	EN 16523- 1:2015	permeation, gloves with irregular design	28-8-2019	30-9-2019	7-2-2020
EN 374	33-001	01	EN ISO 374- 1:2016 / EN 374- 4: 2013	Degradation; Hydrofluoric Acid	28-8-2019	30-9-2019	7-2-2020
EN 374	33-002	01	EN ISO 374- 1:2016	Permeation levels; User information	28-8-2019	30-9-2019	7-2-2020
EN 374	32-005	01	EN374-4: 2013	Sampling, puncture test, irregular construction, chemical protective gloves	28-8-2019	30-9-2019	7-2-2020
EN 374	34-005	01	EN ISO 374- 1:2016 (Table 2)	Permeation against chemicals	28-8-2019	30-9-2019	7-2-2020

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Gloves EN 420	23-007	01	EN 420: 2010 (4.3.2)	pH value	28-8-2019	30-9-2019	7-2-2020
Gloves EN 420	32-010	01	EN 420: 2003 (4.3.2)	pH value	28-8-2019	30-9-2019	7-2-2020
Gloves EN 420	<u>19-012</u>	01	EN 420: 2010 (4.3.3)	Chromium	28-8-2019	30-9-2019	7-2-2020
Gloves EN 420	19-011	01	EN 420: 2010 (4.3.4)	Protein content	28-8-2019	30-9-2019	7-2-2020
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Gloves EN 420	18-014	01	EN 420: 2010 (5.3)	Water vapour transmission and absorption	28-8-2019	30-9-2019	7-2-2020
Gloves EN 420	23-006	01	EN 420: 2010 (5.3.1)	Water vapour transmission	28-8-2019	30-9-2019	7-2-2020
Gloves EN 421	19-004	01	EN 421: 2010	Radiologist's gloves; ionizing radiation	28-8-2019	30-9-2019	7-2-2020
Gloves EN 511	34-008	01	EN 511: 2006 (4.5 / 5.5)	insulation against cold, heated gloves	28-8-2019	30-9-2019	7-2-2020
Gloves EN 659	19-010	01	EN 659: 2008	Firefighter's gloves; cuffs	28-8-2019	30-9-2019	7-2-2020
Gloves EN 659	22-013	01	EN 659: 2008	Firefighter gloves; heat transfer	28-8-2019	30-9-2019	7-2-2020
Gloves EN 659	24-009	01	EN 659: 2008	Firefighter gloves; features	28-8-2019	30-9-2019	7-2-2020
Gloves EN 659	22-014	01	EN 659: 2008	Firefighter gloves; marking	28-8-2019	30-9-2019	7-2-2020
Electrostatic charges	28-012	01	EN 61340	Electrostatics	28-8-2019	30-9-2019	7-2-2020
Electrostatic charges	34-010	01	EN 1149-5:2018 (4.2.1)	Surface resistance; Surface resistivity	28-8-2019	30-9-2019	7-2-2020
Electrostatic charges	34-016	01	EN 1149-5:2018 (4.2.2.2, 4.2.2.3)	Attachments; Conductive parts	28-8-2019	30-9-2019	7-2-2020
Cold protective clothing	05.299	01	EN 342:2017	combination of cold protection and chemical protection	28-8-2019	30-9-2019	7-2-2020
Cold protective clothing	22-017 (Q1)	01	EN 342: 2017; EN 14058: 2017	Categorization; scope	28-8-2019	30-9-2019	7-2-2020
Cold protective clothing	27-015	01	EN 342: 2017	ensembles and garments;	28-8-2019	30-9-2019	7-2-2020
Cold protective clothing	33-005	01	EN 342: 2017 / EN 14058:2017 Clause 5	pre-treatment; design and comfort; innocuousness	28-8-2019	30-9-2019	7-2-2020
EN 343	17-007	01	General	Categorization; combination of properties	28-8-2019	30-9-2019	7-2-2020
EN 343	<u>26-014</u>	01	EN 343: 2019	Removable sleeves	28-8-2019	30-9-2019	7-2-2020
EN 407	05.245 r3	01	EN 407: 2004	Categorization	28-8-2019	30-9-2019	7-2-2020

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EN 407	05.337	01	EN 407: 2004 (5.2)	Categorization; contact heat	28-8-2019	30-9-2019	7-2-2020
EN 407	<u>29-020</u>	01	EN 407: 2004 (5.2)	Classification; contact heat	28-8-2019	30-9-2019	7-2-2020
EN 407	34-014	01	EN 407: 2004 (5.4)	Radiant heat level	28-8-2019	30-9-2019	7-2-2020
EN 407	<u>29-019</u>	01	EN 407: 2004 (5.6)	Thermal protection; molten metal	28-8-2019	30-9-2019	7-2-2020
EN 407	<u>27-013</u>	01	EN 407: 2004 (4.2)		28-8-2019	30-9-2019	7-2-2020
EN 12477	<u>24-</u> <u>010a</u>	01	EN 12477: 2001 (5.7)	Convective heat	28-8-2019	30-9-2019	7-2-2020
EN 510	05.252	01	EN 510: 1993	Entanglement with moving parts	28-8-2019	30-9-2019	7-2-2020
EN 510	05.353	01	EN 510: 1993	External pockets	28-8-2019	30-9-2019	7-2-2020
ENLA 4 4 0 4	10.001	0.4	2.2.2	DDE 1.6 W	00.0.0040	00.0.0040	7.0.000
EN 14404	18-004	01	6.2.2	PPE; definition	28-8-2019	30-9-2019	7-2-2020
EN 14404	33-006	01	00000000	Scope	28-8-2019	30-9-2019	7-2-2020
EN 14404	23-003	01	3.3, 6.2, 3.3, 6.2, 8.I	Type 2; Trousers	28-8-2019	30-9-2019	7-2-2020
EN 14404	<u>26-007</u>	01	5.2.5; 6.5	Penetration resistance	28-8-2019	30-9-2019	7-2-2020
EN 16689	33-007	01	EN 16689: 2017 (7.8.2)	pre-treatment, viral penetration resistance	28-8-2019	30-9-2019	7-2-2020

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<u>05.05-110</u>	02	EN 366	Radiant heat; colour	15-06-2021	01-10-2021	18-11-2022
<u>05.05-156</u>	02	EN ISO	Dimensional change,	15-06-2021	01-10-2021	18-11-2022
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<u>05.05-184</u>	02	EN 1082	Butcher gloves	16-06-2021	01-10-2021	18-11-2022
<u>05.05-188</u>	02	EN 530:2010	Abrasion, pressure	15-06-2021	01-10-2021	18-11-2022
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05.05-226	02	EN 14605	Attached items	16-06-2021	01-10-2021	18-11-2022
05.05-251	02	EN ISO 20471:	Design; retroreflective;	15-06-2021	01-10-2021	18-11-2022
		2013	arrangement			
05.05-282	02	EN 470-1	Molten metal drops; high	15-06-2021	01-10-2021	18-11-2022
			visibility			
<u>05.05-309</u>	02		Test report, reference to	15-06-2021	01-10-2021	18-11-2022
			regulation			
<u>05.05-316</u>	02	EN 366 / EN ISO	Blackening of calorimeter	15-06-2021	01-10-2021	18-11-2022
		6942				
05.05-348	02	EN ISO 20471:	Bands encircling the torso	15-06-2021	01-10-2021	18-11-2022
05.21-010		2013				
<u>05.17-002</u>	02		Instructions of use	15-06-2021	01-10-2021	18-11-2022
<u>05.17-008</u>	02		Protective clothing,	15-06-2021	01-10-2021	18-11-2022
			categorisation			
<u>05.17-017</u>	02		Various performance levels	15-06-2021	01-10-2021	18-11-2022
			in one garment			
<u>05.17-018</u>	02	EN ISO 20471:	Retroreflective; shoulder	15-06-2021	01-10-2021	18-11-2022
07.40.05		2013	bands	10.00.005:		
05.18-005	02	EN 659:2008	Firefighter gloves; puncture	16-06-2021	01-10-2021	18-11-2022
05.18-006	03	EN 14404	Type 2, trousers	18-03-2022	30-04-2022	31-08-2023
<u>05.19-002</u>	02	EN 13356:2001	Retroreflective; angle	15-06-2021	01-10-2021	18-11-2022

05.22-008	02	EN ISO 20471: 2013	Colour fastness; non- fluorescent	15-06-2021	01-10-2021	18-11-2022
05.22-301	00	EN ISO 15384	Withdrawn EN standard under PPE Directive – new EN ISO standard not harmonized yet under PPE Regulation	23-05-2022	07-12-2023	26-05-2024
05.23-005	02	EN 13034	Repellency, penetration	16-06-2021	01-10-2021	18-11-2022
05.23-013	02	EN ISO 20471: 2013	Retroreflective bands	15-06-2021	01-10-2021	18-11-2022
05.23-301	01	EN 469:2020	Dimensional change, limits, nonwoven, quilted material	29-08-2023	07-12-2023	26-05-2024
05.24-006	02	EN ISO 20471: 2013	Retroreflective; encircling bands	15-06-2021	01-10-2021	18-11-2022
05.24-012b	03	EN 1149-5	Design, vests	18-03-2022	30-04-2022	31-08-2023
05.24-026	02	EN ISO 20471:2013	Measurement of background material; combined performance materials	15-06-2021	01-10-2021	18-11-2022
05.26-001	02	EN 13034	Breathable spray-tight	16-06-2021	01-10-2021	18-11-2022
05.26-013	02		Antineoplastic agents	16-06-2021	01-10-2021	18-11-2022
05.28-007	02	EN 61482-2 - IEC 61482- 2:2009	Retro-reflective	15-06-2021	01-10-2021	18-11-2022
05.28-010	02	EN ISO 20471: 2013	Coated fabrics and laminates; water vapour resistance	15-06-2021	01-10-2021	18-11-2022
05.29-007	02	EN ISO 20471: 2013	Physiological performance; Contrast material	15-06-2021	01-10-2021	18-11-2022
05.29-011	02	EN ISO 11612: 2015	Definitions; material; flame spread	15-06-2021	01-10-2021	18-11-2022
05.31-001	02	EN 13034:2005 /A1:2009	Washing, reimpregnation, care label	16-06-2021	01-10-2021	18-11-2022
05.32-011	02	EN ISO 13688: 2013	Marking	15-06-2021	01-10-2021	18-11-2022
05.33-004	02	EN ISO 11611: 2015	Aprons; plastic buckles	15-06-2021	01-10-2021	18-11-2022
<u>05.34-002</u>	00	EN 14325:2018	Pressure pot; abrasion	22-05-2019	30-04-2022	31-08-2023
05.34-006	02	EN ISO 20471: 2013 +A1:2016 / EN 14058:2017 / EN 342: 2017	Water vapour resistance, comfort, combination of standards	15-06-2021	01-10-2021	18-11-2022
05.34-007	02	EN 13034:2005/ A1:2009	Pre-treatment, liquid repellency and penetration	16-06-2021	01-10-2021	18-11-2022



CO-ORDINATION OF NOTIFIED BODIES PPE

Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

General

Rev.: 2019-08

Approval by:

Horizontal Committee
PPE expert group

Approved on: 30-09-2019 7-2-2020

Sheet number PPE- R/05.	Standard (clause)	Key words	Question	Proposed solution	Comment
21-014	EN ISO 13688:201 3 (4.2)	Innocuous ness, azo colourants	EN ISO 13688: 2013 clause 4.2 Innocuousness, paragraph (d), states that Azo colourants, which release carcinogenic amines listed in EN14362-1, shall not be detected by the method in that standard. EN14362-1 is the method for the determination of amines in natural fibres. This method is not suitable for synthetic fibres or for leathers.	EN 14362-2 should be used for synthetic fibres and CEN ISO/TS 17234: 2003 used for dyed leathers For information: EN 14362 Textiles - Methods for the determination of certain aromatic amines derived from azo colorants Part 1: Detection of the use of certain azo colorants accessible without extraction Part 2: Detection of the use of certain azo colorants accessible by extracting the fibres CEN ISO/TS 17234:2003 Leather Chemical tests Determination of certain azo colourants in dyed leathers	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020
20-003	EN ISO 13688:201 3	Comfort, practical performan ce	What is the minimum requirement to meet clauses 1.2.1.2 and 1.2.1.3 of the Essential Health and Safety Requirements?	When there is no specific assessment procedure in the relevant product standard, Annex C of EN ISO 13688: 2013 or a similar assessment shall be used.	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020

20-010	EN 13911:200 4	Fire hoods, practical performan ce test	The paragraph 6.2 refers to annex B (a normative annex). This annex describes a practical performance test which shall be conducted with fire-fighter equipment: firehood, clothing, breathing apparatus, helmet, and gloves. As this test is depending on the type of each equipment used and as it is the responsibility of the fire-fighter to select the correct equipment depending on a risk assessment (and not the notified body): Is it possible for a notified body to issue an EC type examination based on EN 13911 without carrying out the practical performance test defined in annex B but with a warning which explains that the fire-fighter shall conduct the test before selecting a firehood?	No, as the annex B is normative, no EC type examination based on EN 13911 should be issued without carrying out the practical performance test. Compatibility of the hood with other PPE items shall be checked. It is the responsibility of the manufacturer to propose a set of PPE to be used with the hood. This set can later be extended.	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020
32-004	EN 13911:200 4 / EN 13911:201 7	Categoriza	What Category are firefighter's hoods conforming to EN 13911? These items are intended to be worn together with firefighter suits complying with EN 469, breathing apparatus complying with EN 136 and EN 137, and helmets complying with EN 443, and are worn during structural firefighting.	Firefighter PPE for use in high- temperature environments, as found in structural firefighting, is Category III. This includes fire hoods intended to be worn for protection during structural firefighting.	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020
20-016	EN 14877:200 2	Abrasive blasting; categorizat ion	To which category of PPE do abrasive blasting clothing of Type 1 (no respiratory protection), Type 2 (upper part of the body) and Type 3 (whole body protection, including respiratory protection) belong?	Type 1 is PPE of category II (independent of respiratory protection devices). Types 2 and 3 are category III, because they are used in combination with respiratory protection devices.	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020

05.031	Optional clauses	In several standards, some properties are marked: "if required". Shall the corresponding tests be carried out necessarily?	The test shall only be carried out on request of the manufacturer or if the property is claimed in the technical file or the information for use.	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020
05.105	Categoriza tion; working garments	Are classical working garments considered as protective clothing?	A classical working garment which protects only against non aggressive dust without any specific protection is not considered as protective clothing and is excluded from the scope of the PPE Regulation. For a PPE the risk has to be described by the manufacturer. Sanctioning improper use is the	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020
			responsibility of the market surveillance.	
05.230	Water vapour resistance	Annex II, 2.2 of the Regulation states that PPE enclosing parts of the body shall minimise perspiration resulting from use. Otherwise it must be equipped with means of absorbing perspiration.	No, several techniques (design, cooling garments, ventilation) can be used to meet that requirement	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020
		Is it necessary to test all kinds of clothing for water vapour resistance?		
05.289	Dimension al change; seams	Is dimensional change in clothing only related to length and width or to seams too?	At the moment only shrinkage of materials shall be tested.	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020
05.292	Combinati on of PPE	A manufacturer produces a vest, sleeves that can be attached to the vest or used separately, apron and gaiters for welders, all made of the same material. Can he submit one technical file containing designs, etc for all of them?	It is possible to submit one technical file only for all products. This depends on the intended use. If the manufacturer points out in the information leaflet that they must always be used together, then one certification shall be carried out. If not, several separate certifications are possible.	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020
		In such a case, can each garment, separately bear the CE marking?		

24-028	EN ISO 11611: 2007 (4.1)	Single garments	Standards said: "heat and flame protective suits shall completely cover the upper and lower torso, neck, arms and legs. Suits shall consist of a single garment, e.g. an overall or boiler suit, or a two-piece garment, consisting of a jacket and a pair or trousers.	24-028	EN ISO 11611: 2007 (4.1)
24-029	EN ISO 11611: 2007 (4.1)	Additional protective clothing	It is possible to certify only neck curtain, hoods, sleeves apron and gaiters?	Yes.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
26-016	EN ISO 11611: 2007 (4.1)	Short sleeves; short trousers	Can we certify a garment with short sleeves or short trousers to thermal risks (welding protection)?	No.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
05.335	EN 470-1: 1995 (4.1) EN ISO 11611: 2007 (4.1)	Design	In case a zipper is used: should it be covered when made of metal to prevent electrical conduction (as per EN 470-1) or should it be treated as to prevent sticking of the molten metal (as per EN 531 D and E).	The outside of the zippers shall be covered	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
24-003	EN ISO 11611: 2007 (4.1.1)	Design; neck; collar	Clause 4.1.1 of EN ISO 11611 states that: "Welders' protective suits shall completely cover the upper and lower torso, neck, arms and legs." What form of collar is required to meet this Clause? The text implies that the collar must completely cover the neck, including the throat, in the same way that firefighter's suits protect the wearer's neck.	A standard shirt-type collar, or a mandarin collar, are suitable for this type of end-use, provided that they can be fastened at the neck. A collar that fastens over the throat, such as a firefighter's collar, is not normally required for this end use.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
05.355		Reference to standards	Can a garment label refer to e.g. EN 343 when the material does not fulfil the requirement for bursting strength?	One can only refer to a standard when <u>all</u> criteria of this standard are met. The pictogram is not protected and can be used	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020

17-007	Categoriza tion; combinati on of properties	If we receive a PPE where the manufacturer's instructions show the foul weather and the heat and flame pictograms, can a Notified Body certify this PPE only against the thermal risks? What if instead of the foul weather pictogram (category I), a static electricity pictogram (category II) is used?	It is impossible to make partial certificates for the same PPE and hence all relevant essential requirements shall be checked. The PPE categorization and the corresponding certification procedure are determined by the "highest" type of risk.	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020
19-013	Draft standards	For some PPE, no harmonized standards exist and there are only draft standards available. In case of EU type examination of such equipments, what version of draft standard can be used? The most recent publicly available draft or the most recent working group draft?	In all cases certification shall be made against the essential requirements of the Regulation. The draft standard may be used as a technical tool but by itself does not give a presumption of conformity, like a harmonized standard does. The manufacturer cannot claim compliance with the harmonised standard either. To do this the laboratory results shall be reviewed alongside the final standard when it is available. A working group draft of later date than the public enquiry draft is to be considered as a more accurate reflection of the state of the art, as it takes the comments of the enquiry into account. Such a document can be expected to be closer to the final text of the standard than an enquiry draft.	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020

23-011		Examinati on of models	According to the Regulation the certification body shall conduct the necessary examinations to establish the conformity of the model with the essential health and safety requirements. But what does it mean? Should the same model in every different material concept or variation be examined? For example: If a company have a model of a fire fighter's jacket in five different tested material concepts that fulfils the requirements of EN 469 and three different reflective materials that also fulfils the requirements in combination with the material concepts. Shall each combination of the model be examined? In this example it means examination of 15 jackets, provided by the manufacturer.	All model, material and colour changes shall be brought to the attention of the notified body. If the manufacturer can show that these changes can be seen as a variant to a certified model in the sense of the PPE guidelines, a new model examination shall not be required. If the manufacturer can show that there will be no influence on the protective properties, the changes shall not be considered as a new model and no model examination shall be required.	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020
25-003	EN 530 / EN ISO 12947-2	Abrasion	Martindale testing machines for use in the test methods – EN 530 (indicated in EN 471, EN 343), EN 388 clause 6.1 or EN ISO 12947-2 (indicated in EN 343), should meet the requirements of EN ISO 12947-1 and have the counter for counting the abrasion rubs, but not abrasion cycles. However standards EN 388, EN 471, EN 343 state requirements for abrasion resistance in abrasion cycles. Does it mean, that required number of abrasion cycles, performing above mentioned tests, should be converted into rubs, multiplying the number of cycles by 16, according to definitions described in EN ISO 12947-1, clause 3?	In EN ISO 12947 a cycle is a full Lissajous figure (16 revolutions) In EN 388, EN 471, EN 343 and other performance specifications, a 'cycle' usually means 1 revolution or 'rub'. We ask CEN TC162 to clarify the definition in their standards.	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020

30-003 r1	Validity of test reports	The acceptance of test reports for EU Type-Examination is treated differently by Notified Bodies, is it possible to come to a consensus that all NB's use the same approach?	Yes. The acceptance of test reports EU Type-Examination is the responsibility of the Notified Body. Module B of the PPE Regulation states: "carry out appropriate examinations and tests, or have them carried out" In cases where the Notified Body accepts test reports only until a	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020
			certain date, such date should be not less than 5 years. The Notified Body may also require verification testing of materials.	
30-007	Pretreatme nt; drying procedures	Is it permissible to omit drying procedures between wash cycles on washing pre-treatments where passive drying procedures are to be used (e.g. for ISO 11612, ISO 11611, EN 469, ISO 14116, ISO 20471 etc.)	Yes, as passive drying procedures do not affect properties such as heat and flame resistance, physical properties, colour and retroreflectivity. Where drying procedures are passive (e.g. Line dry, Flat dry, Drip Dry) drying procedures may be omitted between wash cycles and only conducted after the final wash. However, the material should be removed from the machine between washes.	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020
			But where active drying procedures are required (e.g. Tumble dry) the drying procedures must be conducted between washes, in standards where the laundry cycle is defined as "each cycle consists of one wash and one drying cycle".	
30-009	Module C2 schedule; Module B renewal	Vertical Groups have been asked by the Horizontal Committee to try to harmonize their procedures for Module C2. What principles should be followed when conducting Module C2 on protective clothing and gloves?	The Notified Body has the responsibility for the Module C2 process. All protection offered by the product shall be examined. The tests can be spread over 5 years. The tests carried out can be taken into consideration during the renewal of the EU Type-Examination Certificate.	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020
32-012	symbols, date of obsolescen ce, date of manufactu re, marking	Which symbols should be used, if information according to PPE Regulation Annex II, paragraph 2.4 is required on the marking / label of protective clothing or gloves?	If symbols are used, then the following symbols should be used: ISO 7000 nr 2607 for date of obsolescence	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020
			ISO 7000 nr 2497 for date of manufacture	



Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

High Visibility

EN ISO 20471 (EN 471) – EN 1150 – EN 13356 Rev.: 2019-08

Approval by:

Horizontal Committee 30-09-2019

EU PPE Expert Group 7-2-2020

Sheet	Standard	Key words	Question	Proi	oosed solution	Comment
number PPE- R/05.	(clause)	. , 3 <u>-</u> a	Q	110		
31-008		Harnesses	In the previous Standard EN 471:2003, there was sub-clause 4.2.9 relating to harnesses: "Harnesses shall comprise a retroreflective band (separate or combined performance materials) encircling the waist and other retroreflective bands (separate or combined performance materials) joining the waistband from the back to the front over both shoulders, the bands not less than 30 mm wide." But in the current Standard EN ISO 20471:2013 High visibility clothing – Test methods and requirements, there is no clause relating to harnesses. So the question is how to deal with harnesses?	accessory inten presence visual vehicle headlig 2. To the account the dra	ded to signal the user's ly when illuminated by ht on dark roads. Regulation, taking into ft standards for products um risk situations.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020

05.181	EN 471: 2003 (4.1) / EN ISO 20471: 2013 (4.1)	Classifica tion; Jacket with removabl e sleeves	How to certify/classify a jacket with removable sleeves (class 3 with sleeves and class 2 without)?	The class indication in the marking could be replaced by an "i" referring to the instruction for use. An alternative is to mention the highest class in the marking, accompanied by a warning (in full text and in the language of the country of use) that this ranking can not be obtained if the garment is worn without sleeves The choice is left to the manufacturer but everything has to be fully explained in the instructions for use, which are an integral part of the technical documentation.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
05.341	EN 471: 2003 (4.1, 5.1) / EN ISO 20471: 2013 (4.1, 5.1)	Classifica tion; perforated materials	How shall the minimum required area (performance class) be determined in the case of perforated materials? Shall the minimum luminance factor be applied also to perforated background materials?	The colour test shall be carried out on the material as it is used (i.e., samples with perforation), the area to be taken into account for classification purposes is the total visible area of perforated material (i.e., without deducting the area of the perforations).	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
05.116	EN 471: 2003 (4.1) / EN ISO 20471: 2013 (4.1)	Classifica tion; combined performan ce materials	Is it possible to certify all types of garments with combined performance material in class 1?	Combined materials can be used for all types of high visibility garments in class 1	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
28-009	EN ISO 20471: 2013 (4.1)	Minimum area	Clause 4.1 final paragraph states: "At least (50 ± 10) % of the minimum area of visible background material shall be on the front part of the garment." No requirements for minimum area are given for the back of the garment. The required area for the front of the garment is stated to be at least $50\pm10\%$ of the minimum area. This is a contradiction.	At least 40% of the minimum area, as specified in Table 1 of EN ISO 20471, shall be on the front of the garment, and at least 40% of the minimum area, as specified in Table 1 of EN ISO 20471, shall be on the back of the garment. The requirements of Table 1 for minimum area shall be met.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020

29-012	EN ISO 20471: 2013 (4.1)	Combined performan ce material; class	Clause 4.1 states "Garments shall comprise the required areas of background material and retroreflective material or alternatively shall comprise the required area of combined performance material". For combined performance material, you only have the option 'Class 1' even when there is combined performance material which meets the requirements of Table 4 (Minimum coefficient of retroreflection in cd/(lx*m²) for separate performance retroreflective material).	If combined performance material which meets Table 4 of the EN ISO 20471 is used for high-visibility garments, these tapes can be classified as separate performance retroreflective material so that the garments can reach a higher class.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
34-009	EN ISO 20471: 2013 (4.1, 4.2)	Backgrou nd; encircle	EN ISO 20471+A1:2016 clause 4.1 states: "The garment shall be made of high visibility material on all sides. To ensure visibility from all sides (360 degrees visibility), it is important that horizontal retroreflective bands and fluorescent material encircle torso, trouser legs and sleeves." EN ISO 20471 clause	Minimum 50 mm band around the torso, the trouser legs and the sleeves.	
			4.2.2 states: "The background material shall encircle the torso and sleeves and shall maintain a minimum width (height) of 50 mm." EN ISO 20471 clause 4.2.3 states: "The background material shall encircle the trouser legs and shall maintain a minimum width (height) of 50 mm." How much of the background material shall as a minimum encircle the sleeves, legs and torso?		

05.346	EN 471: 2003 (4.2) / EN ISO 20471: 2013 (4.2)	Design; retroreflec tive; patterns	Is it possible to introduce different patterns of retroreflective striping as variants as long as the specification (classification and performance requirements) is met? Same rationale for various background colours?	It is possible to accept these variants if they are clearly explained in the technical documentation and if all possibilities are included in the test report Idem.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
29-008	EN ISO 20471: 2013 (4.2.1, 4.2.2)	Backgrou nd; interrupti ons	There is no definition about the quantity and dimensions of interruptions in fluorescent background material by fastening systems (e.g. zipper) and seams, only for retroreflective material. Some designs of light and sportive jackets don't have a hidden opening in front. Doesn't it make sense to allow such interruptions in fluorescent background material?	Interruptions in fluorescent background material are allowed for zipper closing systems, excluding those covered by flaps with non-fluorescent material.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020

29-010	EN ISO 20471: 2013 (4.2.1, 4.2.2)	Retrorefle ctive bands; shoulders	Clauses 4.2.1 and 4.2.2 of EN ISO 20471 (Garments covering torso and arms) say: "Any gap (for fastening systems and seams) in the lengthwise continuity of each band of retroreflective or combined performance material shall not be greater than 50 mm, measured parallel to the direction of the band, and the total of such gaps shall not be greater than 100 mm in any one band around the torso" Does this mean that the retro reflective tapes around the shoulders cannot be interrupted? For example: the flap of a pocket?	Treat horizontal and vertical torso bands in the same way. Gaps of no more than 50 mm are allowed in each vertical retroreflective band, measured parallel to the direction of the band, and the total of such gaps shall not be greater than 100 mm in each band.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
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34-011	EN ISO 20471: 2013 (4.2.2)	Design; sleeve; torso.	The manufacturer wants to certify a t-shirt without retroreflective tape on the sleeves, only on the torso. Is it possible certify the t-shirt, as presented in the picture below, without retroreflective tape on the sleeves?	Yes. a) If the manufacturer reduces the sleeve length by 3 centimetres; b) if the manufacturer puts a single retroreflective band on the sleeve 50 mm above the sleeve edge. c) if the manufacturer lowers both horizontal torso bands.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
			Observation: Each retroreflective band on the torso is 7 cm in width (height). The sleeve blocks 3 cm of the view of the torso band. There remains 4 cm of torso band not blocked.		
29-001	EN ISO 20471: 2013 (4.2.3)	waist; bib and brace	Does EN ISO 20471 allow to consider a band of retroreflective material around the waist of a of bib and brace trousers in the assessment of the minimum required area of retroreflective material?	No. Clause 4.1 of EN ISO 20471 contains the sentence: "Only those areas of retroreflective materials that comply with the design requirements of 4.2 shall be used in the assessment of the minimum required area of retroreflective areas." This design feature was a "must-have" in EN 471 for Class 2 and 3 but it's no longer considered. Neither the requirements in 4.2 nor the examples shown in Figure 3 refer to it.	

28-008	EN ISO 20471: 2013 (5)	Acceptan ce of EN 471 test report	A client applies for EN ISO 20471:2013 certification. Do you consider / accept fabric test reports tested according to EN 471:2003+A1 where all properties meet the requirements of EN ISO 20471? Or Do you ask for a test report from fabric tested according to EN ISO 20471:2013?	Accept the EN 471 test report (according to the NB's usual policy on test reports) and carry out / ask for the additional testing or the different testing required in EN ISO 20471.	
30-001	EN ISO 20471: 2013 (5.3)	Colour fastness; trimmings	Are the black trimmings considered to be non-fluorescent material and the colour fastness of 5.3.1, 5.3.2 and 5.3.3 are to be tested?	Recommended solution: Yes, black and other contrast coloured trimmings can have influence on back ground material and therefore the colour fastness must be tested and shall pass requirement of 5.3.1, 5.3.2 and 5.3.3.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
29-018	EN ISO 20471: 2013 (5.3.3)	Colour fastness; hot pressing	According to table 3 of the standard, the ironing fastness test should be performed in the dry/dry condition. Therefore, the staining requirement is incompatible because the dry/dry condition of the test method is performed without an adjacent fabric.	The test is performed in the dry condition, with the addition of the control fabric, in order to measure the staining.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020

23-001	EN 471:	Segmente	A retroreflective tape is	1) this item is on the agenda of WG 7	Approval by Horizontal
	2003 (6)	d	available, 50mm in	for the revision of EN 471	Committee: 30/09/2019
	/ EN ISO	retroreflec tive tapes	width, supplied on a clear film backing. The	2) gaps are acceptable provided the	Approval by PPE expert group:
	20471:	live tapes	tape consists of separate	material meets the requirements of EN	07/02/2020
	2013 (6)		sections of retro-	471	
	2013 (0)		reflective material, each	3) gaps should not be counted as	7.3]
			about 5-6mm wide, with	background material	
			a gap of about 1-2mm		
			between each segment;	4) the reflective material can either be	
			each segment is	tested on a black background (worst	
			vertically off-set by	case) or on the material it is applied on	
			about 30 degrees (see	in the garment. The material type (knitted, woven,) should match the	
			picture)	material type used in the garment and a	
				suitable measuring area used which	
			9	takes into account the gaps between the	
			8	reflective materials.	
			7		
			6		
			9		
			2		
			1) Assuming a section of		
			tested tape meets the		
			photometric		
			requirements of the		
			standard, is any		
			definitive research that shows whether		
			segmented materials		
			provide the same level of		
			conspicuity as non-		
			segmented tapes?		
			2) A		
			2) Are gaps in the tape acceptable?		
			Manufacturers may wish		
			to make materials with		
			larger gaps between		
			segments, different		
			segmented widths, and		
			different off-sets.		
			3) Should gaps between		
			tape segments be counted		
			as background material?		
			4) As the segmented tape		
			is made to be bonded to		
			fabric, this suggests that		
			photometric		
			measurement should be		
			measured with the tape		
			bonded to a standard		
			material. Should this be a		
			background material		
			complying with EN471:2003 or some		
			other material? The tape		
			could be applied to the		
			non-fluorescent part of a		
			_	s: September 2024	
			-	'	

17-004	EN 471: 2003 (6.2) / EN ISO 20471: 2013 (6.2)	Washing, maximum number of cycles	Nowadays in the market there are reflective bands that only last three washes. Is it possible to certify high visibility clothing under the PPE Regulation, and to EN ISO 20471 and EN ISO 13688 standards, if the care labelling shows that the maximum number of washes is only three?	Yes, this is possible, but the accompanying information (leaflet, marking) should be very explicit and unambiguous about this.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
29-017	EN ISO 20471: 2013 (6.2.1)	Retrorefle ctive; washing	According to Table 6 of the standard, the performance of retroreflective material shall be measured after pretreatments. Washing must be performed according to point 7.5.2, stating that the washing shall be carried out on a readymade garment or, alternatively, for domestic laundering, on three background material specimens with two stripes of retroreflective material. Is it mandatory to perform the test according to point 7.5.2, on a readymade garment or on retroreflective sewn on to background material, if a test certificate from a Notified Body is available, stating conformance to EN ISO 20471 and where the retroreflective behaviour was checked after a specific number of washing cycles?	No. It is considered that the material meets the requirements for retroreflection after washing if, in the test certificate, it shows that the appropriate number of cleaning cycles have been carried out on the tape.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020

19-001	EN 13356: 2001 (5.2.2)	Reflective; measurem ent	Testing of armbands (and similar deformable materials) Most of the European test houses are measuring the photometric measurements of these items on a flat surface. For probably historic reasons (there was one or more accessory standard in Scandinavia before EN 13356) one or two test houses in the Nordic countries have a special way to mount the product on a cylinder and measure the retroreflection this way. However, there is no reference whatsoever in the standard to this way of testing, nor it is clear which diameter this cylinder should have: the diameter of the wrist of a child, or more like the leg of an adult?	Measuring conditions shall be as much as possible in accordance with the real use of the accessories as confirmed by EN 13356, clause 5.2.2. This could e.g. be a flat surface for accessories used as a reflective strip on a flat background. For armbands however the use of a cylindrical shape (10 cm diameter) is recommended.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
21-015	EN 13356 / EN 1150	High visibility accessorie s, cape for horse riders	Is it possible to certify the reflective striping on a cape for horsemen (grey colour) according to EN 13356? The width of reflective stripes is less than 5 cm. The information leaflet clearly declares that it isn't a warning vest and for use by horsemen only. The standard EN 13356 is fixed at the label. The material of the cape doesn't comply with either EN 471 or EN 1150.	The argument given in favour of certification of this product was that it was only an accessory (EN 13356), comparable to a reflective sticker or hang tag. The cape is then merely a piece of normal clothing, to which the reflective stripes are attached. However, most notified bodies did not follow this argument and were of the opinion that such type of garment gives the user a false sense of safety, even if the information for use explains that only the striping and not the vest should be considered as a PPE.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020

21-004	EN	High	What is the meaning of	Both requirements shall be met. The 15	Approval by Horizontal
	13356	visibility	the term "minimum area"	cm ² are necessary for the visibility from	Committee: 30/09/2019
		accessorie	in the text underneath	a distance. On the other hand the	Approval by PPE
		s,	table 2 of EN 13356.	material shall also meet the 400 mcd/lx	expert group:
		minimum	Does is mean the	requirement.	07/02/2020
		area	reflective area of the test		
			specimen or does it refer		
			to the area of 15 cm ²		
			which type 2 & 3		
			accessories should		
			exceed (see clause 4.1).		
			If "minimum area" does		
			refer to 15 cm ² then		
			surely the requirements		
			in table 2 are		
			meaningless. A type 2 or		
			3 reflector needs to meet		
			R' values at specific		
			entrance and observation		
			angles. However if a		
			reflector only just meets		
			these levels then it will		
			not meet the minimum R		
			value of 400 mcd/lx.		
			We have a reflector		
			which meets table 2 but		
			fails to meet this 400		
			mcd/lx value.		



Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

EN ISO 11612

(EN 531) Rev.: 2019-08

Approval by:	Approved on:
Horizontal Committee	30-09-2019
EU PPE Expert	7-2-2020

Sheet number PPE-R/05.	Standard (clause)	Key words	Question	Proposed solution	Comment
24-007	EN ISO 11612:2 015	Catego rizatio n	What products conforming to EN ISO 11612 belong to category 3?	It is a manufacturer's decision which should be in accordance with the intended use and the risk. The notified body has the right to disagree with the manufacturer's decision. The information leaflet shall contain the appropriate information. The Annex gives the agreed position of VG5.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
22-018	EN ISO 11612:2 015	Catego rizatio n	What category is aluminised clothing designed for steelworkers that meets requirements of EN ISO 11612 class A1, B3-B4, C3-C4 and is not dedicated exactly for emergency team? Annex I of the PPE Regulation it is pointed out that category III will cover: "e) high-temperature environments the effects of which are comparable to those of an air temperature of at least 100 °C;"	Clothing for steelworkers should be classified as category III. From PPE Regulation Guidelines (1st ed.) categorization guide 6.3: "Clothing and/or accessories (whether or not detachable), designed and manufactured for use in high-temperature environments the effects of which are comparable to those of an air temperature of 100 °C or more and which may or may not be characterised by the presence of infra-red radiation, flames, hot splashes or the projection of large amounts of molten materials."	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
05.229	EN ISO 11612:2 015 (1)	Visors	One of the components of flame and heat protective clothing, is a hood incorporating a visor. However the standards make no reference to tests (optical and thermal) or performance levels for the visor. The same applies to some respiratory requirements, like dead space. What shall be checked by the notified body?	The notified body shall conduct the necessary tests for these respiratory and optical protection components to establish conformity with the basic health and safety requirements (in accordance with the intended use).	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020

24-019 r2	EN ISO 11612:2 015 (4.2.2)	Suits; single garme nts	According to EN 531 it was possible to certify single garments and sleeveless or short-sleeved garments. Should the following requirement "Heat and flame protective suits shall completely cover upper and lower torso, neck, arms and legs" be applied also to single garments? It is possible to certify single garments according to EN ISO 11612:2015?	Single garments can be certified according to EN ISO 11612. Sleeveless or short sleeve garments and short trousers can be certified according to EN ISO 11612 as "Additional Protective Clothing", to be worn with full suits complying with the standard. Examples are high visibility vests and undergarments. It must be possible to buy and sell garments separately. According to scope of the standard garments could be worn for a wide range of end uses. The body area to be protected should be based on the risk assessment. Note: EN ISO 11612 clause 9.3 requires the User Information to include a note giving the items of clothing that need to be worn in order to protect the wearer's body.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
31-002	EN ISO 11612:2 015 (4.2.2)	Quick- release fasteni ngs	Clause 4.2.2 states: "quick-release fastenings shall be provided to enable rapid removal of the garments in the event of an emergency". What is meant by rapid removal? How long is permitted before the garment is not rapidly removed, and how is it to be assessed? Should the time allowed for rapid removal be related to the level of protection?	A standardized assessment is not presently available, and a more specific requirement and assessment method should be included in the revision of the standard. Fastenings are deemed to be 'quick-release' if they allow rapid removal of the clothing. Rapid removal is to be assessed by the Notified Body, giving consideration to the level of protection offered.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
24-018	EN ISO 11612:2 015 (4.3)	Pocket s; flame spread	Clause 4.3 states that: "Where garments are constructed with pockets, the pockets shall be made of the materials conforming to 6.3" (limited flame spread). This requirement is relevant for patch pockets, but in the garments there are often also inner pockets, which are not exposed to external hazards. There have been durability problems when using flame retardant materials in inner pockets in normal use. Inner pocket material shall meet the requirement for heat resistance, but could the requirements for limited flame spread properties be lower than for outer material?	Inner pocket material shall meet the flame spread requirements when tested on their own or when tested to 6.3.2.2 as an assembly.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
05.308	EN ISO 11612:2 015 (4.5)	Molten metal design; Pocket s	Can a zipper be used for closing a pocket? Trouser pockets with vertical openings do not need flaps. If jackets have vertical pockets, they do need flaps. Some manufacturers propose flaps as an extension of the opening.	Yes, if covered by a flap The flap should be in the opposite direction or perpendicular to the opening	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020

05.314	EN ISO 11612:2 015 (4.5)	Molten metal design; Pocket s	Are the pocket requirements also valid for a pass-through? Does it need to be closed over its entire length?	It shall be possible to close all openings fully to avoid molten metal to enter.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
05.354	EN ISO 11612:2 015 (4.5)	Molten metal design; Pocket s	Can an antenna (e.g. of a cell phone or walkie-talkie) stick out of the pocket flap through an opening?	No, the pocket shall be closed over all its length	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
29-014	EN ISO 11612:2 015 (4.5b)	Design ; pocket s	The standard EN ISO 11612 (point 4.5 b) states that external pockets must be covered by flaps at least 20 mm wider than the opening of the pocket in order to prevent the flap from being tucked into the pocket. Is it allowed to have this kind of flap sewn on both sides? This flap fulfils the point "to prevent the flap from being tucked into the pocket" but it is not 20 wider than the opening.	This pocket flap fulfils the requirements of EN ISO 11612 (point 4.5 b).	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
29-016	EN ISO 11612:2 015 (4.5b)	Design ; pocket s	The standard EN ISO 11612 (point 4.5 b) states that the external pockets on jackets, trousers, coveralls and bib + brace, other than side pockets below the waist which do not extend more than 10° forward of the side seam, shall be covered by flaps. Does this also apply to the openings of a garment without a pocket (only an opening in the garment)? Some trousers are made with these openings to allow the access to an inner trouser with a pocket.	No. These types of openings must always be covered.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
30-002	EN ISO 11612:2 015 (4.5b)	Design ; pocket s	Can the molten splash protective garments, certified according to EN ISO 11612, have a single not flapped pocket placed behind the side seam on one or both legs?	No, Clause 4.5b requires these types of pockets to have a flap.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020

23-010	EN ISO 11612:2 015 (4.5d)	Molten metal design; overla pping seams	Is a fabric application (see grey strip) to be considered as an overlapping seam or as an embroidery, and can it be certified like that or not?	The garment shall be tested against molten metal splash using a test specimen, which contains the strip as positioned on the garment or the design shall be modified to meet the requirements of the standard.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
29-015	EN ISO 11612:2 015 (4.5e)	Design; closure s	The standard EN ISO 11612 (point 4.5 e) states that closures shall be designed with a protective cover flap on the outside of the garment. Is this covered zipper allowed? (NOTE: The question refers to the larger, main zipper, not the short zipper on the outside of the flap.)	No. This design does not fulfil the additional design requirements (Clause 4.5) of EN ISO 11612.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
18-009	EN ISO 11612:2 015 (4.5)	Molten metal design; Zips	The standard requires that metal zippers are covered or treated in order to prevent molten metal to stick to the zipper. Does this mean that plastic zippers can remain uncovered?	For this type of intended use zippers shall always be covered.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
27-014	EN ISO 11612:2 015 (4.5)	Molten metal design, closure s, cover flap	Is the design of clothing with metal closures without cover flap permissible for the aluminised clothing against molten metal splashes?	Yes, this design is possible with a suitable overlapping of materials, and depending on the design and ergonomic assessment of the Notified Body.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020

25-011	EN ISO 11612:2 015 (5.2.1; 5.2.3)	Pre- treatm ent of materi al	If the manufacturer's instructions indicate that 50 cleaning cycles are allowed, should each test specified in Clauses 6 and 7, except 6.8, 6.9.2 and 6.9.3, be performed after 50 cleaning cycles; OR should they be performed after 5 cleaning cycles and only flame spread according to 6.3 be performed before and after 50 cycles?	If the manufacturer's label indicate a maximum number of cleaning cycles are allowed then each test specified in Clauses 6 and 7, except 6.8, 6.9.2 and 6.9.3 shall be performed after that number of cleaning cycles. If no maximum number is claimed, the tests are carried out after 5 cycles. The User Information may contain additional information on flame spread testing after additional cleaning cycles.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
23-018	EN ISO 11612:2 015 (5.2)	Flame spread; cleanin g	EN ISO 11611 and 11612 require flame spread tests to be carried out after cleaning to the manufacturer's instructions. If not specified, then five cleaning cycles are carried out. For washable materials, one cleaning cycle is defined as a wash plus drying. Where no manufacturer's instructions are given, is it possible to accept test results where the pretreatment is five wash cycles and a final dry?	The purpose of the cleaning pretreatment for the flame spread test is to remove any finishes that could affect flammability. Washing cycles will be as effective as wash/dry cycles in this regard. However, EN ISO 11612 requires the materials to be pretreated for all of the remaining tests, so there is little saved in the way of testing cost or time.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
05.334	EN ISO 11612:2 015 (5.2)	Flamm ability, washin g, durabil ity	Manufacturer claims e.g. 50 washing cycles for the flame retardancy of the fabric. Shall the fabric be washed 50 times and the flame spread tested before the certification?	Testing may be omitted if an audit by an independent third party of the fabric manufacturer's quality system proves the manufacturer monitors frequently and adequately the permanency of the fire retardancy. If this quality control and documentation is missing, appropriate numbers of washings shall be carried out before testing the flame spread. However, it remains the Notified Body's decision whether or not this documentation is acceptable	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
26-006b	EN ISO 11612:2 015 (6.2)	Heat resista nce; access ories; hardwa re	If in a technical files different fabrics (different weight, different composition, coated and non-coated, with or without A/S fibre etc) are used to make the personal protective equipment (clothing), shall the heat resistance be tested on each accessory (hardware) in each quality?	In principle, testing from similar fabrics can be used for certification. It is recognised that garment assemblies can be highly complex, being comprised of a variety of materials and combinations. Therefore, it is recommended that each Notified Body considers the worst case condition for the product, thereby requiring those tests it deems necessary to satisfy the requirements of the Standards and the Directive.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
27-004	EN ISO 11612:2 015 (6.2.1)	Heat resista nce; hardwa re	Is it obligatory to test hardware according to EN ISO 11612, Clause 6.2.1 (heat resistance) if the test according to EN ISO 11612 Clause 6.3.2.3 (limited flame spread) is carried out and the hardware passes the requirements?	The test according to 6.2.1 shall be carried out on all hardware, tested as presented on the garment.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020

29-023	EN ISO 11612:2 015 (6.2.1)	Heat Resista nce; shrinka ge	When tested according to EN ISO 11612 (point 6.2.1) at 180°C, shrinkage must not exceed 5%, and the sample must not ignite or melt. It possible certify a garment to EN ISO 11612, if it contains a knitted fabric that fulfills all of the requirements of EN ISO 11612 except shrinkage after heat resistance?	No.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
24-020	EN ISO 11612:2 015 (6.3.2.2)	Multila yer garme nts	Clause 6.3.2.2 states that: "If the garment is multilayer, specimens of the component assembly including seams shall be tested both by applying the flame to the surface of the outer material of the garment and to the innermost lining of the garment and shall meet the requirements of 6.3.2.1" In Nordic countries there are a lot of multilayer garments on the market and in use due to our cold climate. When certified according to EN 531 the flame spread was tested by applying the flame to the surface of the multilayer material. To meet the requirement of EN ISO 11612 the innermost lining shall have the same flame spread properties as the outer material. This makes the multilayer garments very heavy, stiff and impermeable.	Certify to the Regulation.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
29-004	EN ISO 11612:2 015 (6.3.2.2)	Hole formati on; outer layer	Clause 6.3.2.2 states: "If the garment is multilayer, specimens of the component assembly including seams shall be tested both by applying the flame to the surface of the outer material of the garment and to the innermost lining of the garment and shall meet the requirements of 6.3.2.1, including that no specimen shall suffer hole formation except for an interlining that is used for specific protection other than heat protection, for example liquid penetration." Can a two-layer garment, that suffers hole formation of the outer layer when tested according to 6.3.2.2, meet code letter A1 of EN ISO 11612?	No. The only layer that is allowed to show hole formation is an interlining (EN ISO 11612 definition: layer between the outermost layer and the innermost lining in a multilayer garment). Hole formation in either the outer layer or the innermost layer is hole formation in the specimen, and is forbidden by 6.3.2.1.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020

30-006	EN ISO 11612:2 015 (6.3.2.2)	Multila yer; Limite d flame spread; Heat transm ission	1. According to EN ISO 11612:2008, 5.1: "Samples shall be representative of the component assembly, exactly as used in the finished garment". However, it is known that adding materials to the component assembly (e.g. high-bulk non-woven interlining and linings) can only increase the protection level for the parameters from Clause 7 (e.g. radiant heat and convective heat). In the case of multilayer protective clothing, also intended for protection against cold, must the Notified Body require testing of the complete assembly against the relevant heat transfer tests in Clause 7?	1. No. The classification for heat transfer can be based upon the performance of the outer fabric only, provided the assembly meets Code Letter A, and all fabrics meet the Heat Resistance requirements (6.2.1). 2. Yes. If the classification for heat transfer for a multi-layer garment is based upon the performance of the outer fabric only, hole formation in an interlining (e.g. a high-bulk non-woven providing protection against cold) during the limited flame spread test can be accepted.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
			2. In a multilayer garment, if the classification for heat transfer can be based upon the performance of the outer fabric only, can holing of an interlining (e.g. a nonwoven providing protection against cold) during the limited flame spread test be accepted?		
26-006a	EN ISO 11612:2 015 (6.3.2)	Flame spread; seams; access ories; hardwa re	If in a technical files different fabrics (different weight, different composition, coated and non-coated, with or without A/S fibre etc) are used to make the personal protective equipment (clothing), shall the flame spread on the accessories (hardware etc) and the seam be tested on each quality?	In principle, testing from similar fabrics can be used for certification. It is recognised that garment assemblies can be highly complex, being comprised of a variety of materials and combinations. Therefore, it is recommended that each Notified Body considers the worst case condition for the product, thereby requiring those tests it deems necessary to satisfy the requirements of the Standards and the Regulation.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
30-004	EN ISO 11612:2 015 (6.3.2.3)	Flamm ability behavi our; hardwa re	Clause 6.3.2.3 states: "Hardware (e.g. touch and close (hook and pile) fasteners, etc.), whether it is exposed or covered when all closure systems in the closed position, shall be tested separately by applying the test flame to the outer surface of the component assembly containing hardware exactly as designed in the garment. The hardware shall remain functional after the test." Can closures which are completely metal and which are not sewn on to the garment be excluded from the test due to a much higher melting point than possible with the test flame?	Yes. Closures which are completely metal and which are not sewn on to the garment do not have to undergo the test.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020

25-006	EN ISO 11612:2 015 (6.3.2.4)	Flamm ability behavi our; embroi dery	Clause 6.3.2.4 states: "Labels, badges, retro-reflective materials, etc., shall have the same flammability behaviour as the outer layer of the garment." Clause 6.3.2.1 states: c) no specimen shall melt or suffer flaming or molten debris. How do we judge an embroidery applied on the outer layer which melts during the test?	In the case of small embroideries, localised melting in the area of the flame is acceptable. Molten debris or afterflame > 2s is not acceptable. Consideration should be given to the backing of the embroidery. Testing or covering may be required.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
27-009	EN ISO 11612:2 015 (6.3.2.4)	Flamm ability behavi our; transfe r logos	Many Notified Bodies have experience of inconsistent results with transfer logos. The flammability behaviour can be very different, depending on the size of the logo, the nature of the fabric that the logo is tested on, the colour of the logo, if the logos are letters or a complete surface. Can test results be transferred from one material to another?	No, test results can not be transferred. It is recommended that Notified Bodies in each case decide which combination of logos and fabrics need to be tested.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
24-013	EN ISO 11612:2 015 (6.3.3.1)	Flame spread; hems; seams	Clause 6.3.3.1 states that for testing of seams flame spread, "three hemmed specimens containing a structural seam shall be tested in accordance with ISO 15025:2000, Procedure B" What shall we mean by "hemmed specimens"?	The hemmed specimens containing a structural seam are only these seams that appear "hemmed" (bent) in the garment provided by the producer. Hemmed samples produced by the manufacturer using the same production process as the garment are also acceptable. Specimens which are hemmed by the test laboratory are not acceptable.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
26-006	EN ISO 11611: 2007 (6.7)	Flame spread; seams; access ories; hardwa re	If in a technical files different fabrics (different weight, different composition, coated and non-coated, with or without A/S fibre etc) are used to make the personal protective equipment (clothing), shall the flame spread on the accessories (hardware etc) and the seam be tested on each quality?	In principle, testing from similar fabrics can be used for certification. It is recognised that garment assemblies can be highly complex, being comprised of a variety of materials and combinations. Therefore, it is recommended that each Notified Body considers the worst case condition for the product, thereby requiring those tests it deems necessary to satisfy the requirements of the Standards and the Regulation.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
25-002	EN ISO 11611: 2007 (6.9)	Heat transfe r, multi- layers	Clause 6.9 requires a heat transfer test, in accordance with ISO 6942, to be carried out on the complete material assembly, if the garment is multi-layered. Is it possible to accept test reports issued for each separate material of a multi-layered garment or should the complete material assembly be tested?	If each material of multi-layered garment (e.g. outer, inner, lining) fulfils the relevant requirements for heat transfer in accordance with EN ISO 11611, clause 6.9, the test on the complete material assembly is not necessary, because the performance will not be reduced.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020

26-008	EN ISO 11612:2 015 (6.5.4)	Seam strengt h	The mean value of breaking force, according to EN 13935-2 (seam strength), of a single layer fabric was measured as 204 N, against a requirement of 225 N. The seam itself is still in order after testing, but there is seam slippage visible which lead to the break-up of the testing equipment (see picture). How shall this be assessed?	The test equipment may have stopped the test prematurely. The material may also be prone to seam slippage. The seams should be tested up to the requirement of EN ISO 11612 (225 N) or until the seam fails.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
27-003	EN ISO 11612:2 015 (7.2; 7.3)	Heat transfe r; assemb ly; interlin ing	A multilayer assembly is tested according to Code Letters B and/or C (ISO 9151 convective heat; ISO 6942 radiant heat). The outer and lining fabrics meet the requirements of EN ISO 11612. The sample meets one of the levels for B and/or C, however the intermediate layer (e.g. insulating nonwoven) has completely melted in the exposed area. Is this multilayer assembly acceptable?	Yes, provided the assembly passes Code Letter A, and all fabrics pass Heat Resistance (6.2.1).	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
34-014	EN ISO 11612:2 015 (7.3)	Radian t heat level	EN 407 requires for performance level 1 (radiant heat transfer RHTI 24) >7s, when tested according to EN ISO 6942:2002, method B at 20 kW/m². However 7s are needed to obtain RHTI 24 without a test sample; thus every material will pass. There is the same problem with the radiant heat level in EN ISO 11611 and EN ISO 11612 (C1 \geq 7.0s). Should the minimum performance levels in these standards be revised?	Yes, the minimum performance levels in these standards should be revised. VG5 requests CEN/TC 162/WG 2 and 8 to clarify and improve these standards; amendment / revision is needed. Note: Further standards might need improvement as well; Level 1 from >7s to <20s; EN 15384 requires >11s.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
26-015	EN ISO 11612:2 015 (7.4; 7.5) / ISO 9185	Molten metal splashe s test	For testing molten metal splash, the standard does not suggest any metal support where the specimen is fully supported. When we test in this way, the result is better than without this metal support. Have we to test with this metal support or without it?	For those materials that deform during the test, a metal support would be appropriate.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020

30-008	EN ISO 11612:2 015 (7.5)	Molten metal splashe s test; Retror eflecti ve	Where clothing for protection against molten iron (conforming to EN ISO 11612 Code Letter E) has reflective tapes (meeting the requirements of EN ISO 11612 for flame spread and heat resistance), is it mandatory to perform the molten iron splash test (clause 7.5) on the reflective tape? If yes, how should the tape be placed during the test?	No. However, where a tape or other feature forms a ridge, a molten metal splash test shall be performed, with the pour positioned above the ridge.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
31-003	EN ISO 11612:2 015 (Annex B)	Second set of specim ens	Annex B (normative) Determination of property values for rating and classification" "All the individual results of the specimens of a test shall meet the performance requirement." "The average result shall be given. If a material exhibits differing behaviour for a property in the length and cross directions of the material, the resultant property value shall be the value obtained in the lesser performing direction." "In the event that only one specimen fails, another set of specimens shall be tested and all the individual results of this second set of specimens shall meet the requirements. Otherwise, the sample is considered to have failed the requirement." What is meant by "another set of specimens"	The second set of specimens is a full set of specimens for the particular test.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020

Annex to question 24-007 "categorization": category III

Agreed category for EN ISO 11612 levels.

Category III = **BOLD ITALICS**

Level	Convective Heat	Level	Radiant Heat	Level	Contact Heat
B1	4-10	C1	7-20	F1	5-10
B2	10-20	C2	20-50	F2	10-15
В3	20+	C3	50-95	F3	15+
		C4	95+		

Level	Molten aluminium	Level	Molten iron
D1	100-200*	E1	60-120*
D2	200-350	E2	120-200
D3	350+	E3	200+

^{*} Levels D1 and E1 are not agreed by VG5. Refer to the Standing Committee.



Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

EN ISO 11611

(EN 470-1) Rev.: 2019-08

Approval by:
Horizontal Committee
EU PPE Working Group

Approved on: 30-09-2019 7-2-2020

Sheet number PPE-R/05.	Standard (clause)	Key words	Question	Proposed solution	Comment
05.292	EN 470-1: 1995 (1)	Combinatio n of items	A manufacturer produces a vest, sleeves that can be attached to the vest or can be used separately, apron and gaiters for welders, all made of the same material. Can he submit one technical file containing designs, etc for all of them? In such a case, should each garment, separately bear the CE marking	It is possible to submit one technical file for all products. This depends on the intended use. If the manufacturer points out in the information leaflet that they must always be used all together, then one certification shall be carried out. If not, several separate certifications are possible.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
24-028	EN ISO 11611: 2007 (4.1)	Single garments	Standards said: "heat and flame protective suits shall completely cover the upper and lower torso, neck, arms and legs. Suits shall consist of a single garment, e.g. an overall or boiler suit, or a two-piece garment, consisting of a jacket and a pair or trousers. It is possible to certify only a jacket or a pair of trousers?	Yes. Single garments can be certified. The User Information must include a note giving the items of clothing that need to be worn in order to protect the wearer's body.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
24-029	EN ISO 11611: 2007 (4.1)	Additional protective clothing	It is possible to certify only neck curtain, hoods, sleeves apron and gaiters?	Yes.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
26-016	EN ISO 11611: 2007 (4.1)	Short sleeves; short trousers	Can we certify a garment with short sleeves or short trousers to thermal risks (welding protection)?	No.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
05.335	EN 470-1: 1995 (4.1) EN ISO 11611: 2007 (4.1)	Design	In case a zipper is used: should it be covered when made of metal to prevent electrical conduction (as per EN 470-1) or should it be treated as to prevent sticking of the molten metal (as per EN 531 D and E).	The outside of the zippers shall be covered	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020

24-003	EN ISO 11611: 2007 (4.1.1)	Design; neck; collar	Clause 4.1.1 of EN ISO 11611 states that: "Welders' protective suits shall completely cover the upper and lower torso, neck, arms and legs." What form of collar is required to meet this Clause? The text implies that the collar must completely cover the neck, including the throat, in the same way that firefighter's suits protect the wearer's neck.	A standard shirt-type collar, or a mandarin collar, are suitable for this type of end-use, provided that they can be fastened at the neck. A collar that fastens over the throat, such as a firefighter's collar, is not normally required for this end use.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
29-016	EN ISO 11611: 2007 (4.3b)	Design; pockets	The standard EN ISO 11611 (point 4.3) states that the external pockets on jackets, trousers, coveralls and bib + brace, other than side pockets below the waist which do not extend more than 10° forward of the side seam, shall be covered by flaps. Does this also apply to the openings of a garment without a pocket (only an opening in the garment)? Some trousers are made with these openings to allow the access to an inner trouser with a pocket.	No. These types of openings must always be covered.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
29-014	EN ISO 11611: 2007 (4.3c)	Design; pockets	The standard EN ISO 11611 (point 4.3 c) states that all flaps shall be stitched down or capable of fastening the pocket closed. They shall be 20 mm wider than the opening (10 mm on each side) to prevent the flap from being tucked into the pocket. Is it allowed to have this kind of flap sewn on both sides? This flap fulfils the point "to prevent the flap from being tucked into the pocket" but it is not 20 wider than the opening.	This pocket flap fulfils the requirements of EN ISO 11611 (point 4.3 c).	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020

29-015	EN ISO 11611: 2007 (4.4)	Design; closures	The standard EN ISO 11611 (point 4.4) states that closures shall be designed with a protective cover flap on the outside of the garment. Is this covered zipper allowed?	No. This design does not fulfil the requirements of EN ISO 11611.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
			(NOTE: The question refers to the larger, main zipper, not the short zipper on the outside of the flap.)		
23-018	EN ISO 11611: 2007 (5.2.2)	Flame spread; pretreatmen t	EN ISO 11611 and 11612 require flame spread tests to be carried out after cleaning to the manufacturer's instructions. If not specified, then five cleaning cycles are carried out. For washable materials, one cleaning cycle is defined as a wash plus drying. Where no manufacturer's instructions are given, is it possible to accept test results where the pretreatment is five wash cycles and a final dry?	The purpose of the cleaning pretreatment for the flame spread test is to remove any finishes that could affect flammability. Washing cycles will be as effective as wash/dry cycles in this regard. However, EN ISO 11611 requires the materials to be pretreated for all of the remaining tests, so there is little saved in the way of testing cost or time.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
05.334	EN 470-1: 1995 (7.2) EN ISO 11611: 2007 (5.2.2)	Flammabili ty, washing, durability	Manufacturer claims e.g. 50 washing cycles for the flame retardancy of the fabric. Shall the fabric be washed 50 times and the flame spread tested before the certification?	Testing may be omitted if an audit by an independent third party of the fabric manufacturer's quality system proves the manufacturer monitors frequently and adequately the permanency of the fire retardancy. If this quality control and documentation is missing, appropriate numbers of washings shall be carried out before testing the flame spread. However, it remains the Notified Body's decision whether or not	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020

26-008	EN ISO 11611: 2007 (6.4)	Seam strength	The mean value of breaking force, according to EN 13935-2 (seam strength), of a single layer fabric was measured as 204 N, against a requirement of 225 N. The seam itself is still in order after testing, but there is seam slippage visible which lead to the break-up of the testing equipment (see picture). How shall this be assessed?	The test equipment may have stopped the test prematurely. The material may also be prone to seam slippage. The seams should be tested up to the requirement of EN ISO 11611 (225 N) or until the seam fails.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
24-013	EN ISO 11611: 2007 (6.7)	Flame spread; hemmed seams	Clause 6.7 among others states that for testing of seams flame spread, "three hemmed specimens containing a structural seam shall be tested in accordance with ISO 15025:2000, Procedure B" What shall we mean by "hemmed specimens"?	The hemmed specimens containing a structural seam are only these seams that appear "hemmed" (bent) in the garment provided by the producer. Hemmed samples produced by the manufacturer using the same production process as the garment are also acceptable. Specimens which are hemmed by the test laboratory are not acceptable.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
26-006	EN ISO 11611: 2007 (6.7)	Flame spread; seams; accessories; hardware	If in a technical files different fabrics (different weight, different composition, coated and non-coated, with or without A/S fibre etc) are used to make the personal protective equipment (clothing), shall the flame spread on the accessories (hardware etc) and the seam be tested on each quality?	In principle, testing from similar fabrics can be used for certification. It is recognised that garment assemblies can be highly complex, being comprised of a variety of materials and combinations. Therefore, it is recommended that each Notified Body considers the worst case condition for the product, thereby requiring those tests it deems necessary to satisfy the requirements of the Standards and the Regulation.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
25-002	EN ISO 11611: 2007 (6.9)	Heat transfer, multi-layers	Clause 6.9 requires a heat transfer test, in accordance with ISO 6942, to be carried out on the complete material assembly, if the garment is multi-layered. Is it possible to accept test reports issued for each separate material of a multi-layered garment or should the complete material assembly be tested?	If each material of multi-layered garment (e.g. outer, inner, lining) fulfils the relevant requirements for heat transfer in accordance with EN ISO 11611, clause 6.9, the test on the complete material assembly is not necessary, because the performance will not be reduced.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020

34-014	EN ISO 11611: 2015 (6.9)	Radiant heat level	EN 407 requires for performance level 1 (radiant heat transfer RHTI 24) >7s, when tested according to EN ISO 6942:2002, method B at 20 kW/m². However 7s are needed to obtain RHTI 24 without a test sample; thus every material will pass. There is the same problem with the radiant heat level in EN ISO 11611 (Class $1 \ge 7.0$ s) and EN ISO 11612. Should the minimum performance levels in these standards be revised?	Yes, the minimum performance levels in these standards should be revised. VG5 requests CEN/TC 162/WG 2 and 8 to clarify and improve these standards; amendment / revision is needed. Note: Further standards might need improvement as well; Level 1 from >7s to <20s; EN 15384 requires >11s.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
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Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

EN 469

Rev.: 2019-08

Approval by:

Horizontal Committee

EU PPE Expert Group

<u>Approved on:</u> 30-09-2019 7-2-2020

	1			1		
Sheet number PPE- R/05.	Standard (clause)	Key words	Question	Proposed solution	Comment	
17-015	EN 469: 2005 (1)	Certification, separate clothing items	Is it possible to certify trousers (without the corresponding jacket) and jackets (without the corresponding trousers), if it is specified in the informative leaflet and in the certificate that they have to be worn with a jacket (resp. trousers) that fulfils the requirements of EN 469?	This is possible. The wording of the informative leaflet shall be very clear and precise.	Approval by Horizontal Com 30/09/2019 Approval by PPE 07/02/2020	
05.157 b	EN 469: 1995 (4.6)	Closure systems	A suit has lower insulation where the zipper is placed. How low may this be, before the garment is rejected?	The lower insulation value at the place of the zipper normally generally does not cause problems and hence has not to be considered.	Approval by Horizontal Com 30/09/2019 Approval by PPE 07/02/2020	
05.328	EN 469: 2005 (4.3)	Neck protection	EN 469:2005, clause 4.3, states that "Protective clothing for firefighters shall provide protection for the firefighters torso, neck," Should the collar have the same minimum performance level as the tunic?	The manufacturer shall give advice in the informative leaflet that the level of protection in the collar is lower. The user shall take that situation into account.	Approval by Horizontal Com 30/09/2019 Approval by PPE 07/02/2020	

05.334	EN 469: 2005 (5.2)	Pretreatment; flame spread	A manufacturer claims e.g. 50 washing cycles for the flame retardancy of the fabric. Shall the fabric be washed 50 times and the flame spread tested before the certification?	Testing may be omitted if an audit by an independent third party of the fabric manufacturer's quality system proves the manufacturer monitors frequently and adequately the permanency of the fire retardancy. If this quality control and documentation is missing, appropriate numbers of washings shall be carried out before testing the flame spread. However, it remains the Notified Body's decision whether or not this documentation is acceptable	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
05-157	EN 469: 2005 (6.1)	Badges, logos	The standard does not require flammability testing of accessories such as badges/logos.	The accessories have to be tested in accordance with EN ISO 15025 if they are not properly covered.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020

05.352	EN 469: 2005 (6.1)	Embroideries	When and under which conditions can embroideries be applied on the garment? Should we limit the surface? Are there requirements that the yarn should fulfil?	Embroideries in FR yarn should be accepted without restriction. Separate embroideries with non-FR yarn could be stitched to the garment afterwards. There is still a safe background. For embroideries with non-FR material, a test according EN ISO 15025 should be carried out to check if the sample fulfils the criteria.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
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21-013	EN 469: 2005 (6.1.6)	Hardware; flame spread	Clause 6.1.6 (testing and performance of "hardware") is not clear as to how to apply it. If an attempt to apply it as written is undertaken, the result is likely to be that it is not possible to certify typical firefighter clothing!	The wording of EN 469, clause 6.1.6 has proven to be impracticable and therefore it is recommended that hardware be tested by applying the flame to the outer surface of the region of the clothing containing the hardware, e.g. a closure system. If the hardware is a closure system, it shall function after the test. If there is hardware inside the clothing that might be exposed to flame, for example within 10 cm of the hem of the jacket, this system shall be tested by exposing the item directly to the flame. The item shall not give molten or flaming debris and shall give an afterflame time of not more than 2 s.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
22-001	EN 469: 2005 (6.1, 5.3)	Flame spread, materials, component assembly	How should internal materials which are not part of the main assembly be tested to Clause 6.1 (Flame Spread). Examples include felt and foam used for padding. Are they included in the definition of 'component assembly' (clause 3.4).	Internal materials which are not part of the main assembly are part of a 'component assembly' (clause 3.4) and should be tested to Clause 6.1 (Flame Spread) as part of an assembly, as presented in the garment, with the test flame applied to the outer surface.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020

22-003	EN 469: 2005 (6.1, 6.5, 3)	Flame spread, materials, hardware, braces	Should trouser braces be tested to EN 469? If they should be tested, are they a 'material' (clause 3.11) or 'hardware' (clause 3.7).	Braces, which will not be exposed to flame in use, do not need to be tested to EN 469, 6.1. Braces should be tested to Clause 6.5 (Heat Resistance).	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
22-002	EN 469: 2005 (6.5, 5.3)	Heat resistance, materials, clothing assembly	Are internal and external materials, which are not part of the main assembly, part of the 'clothing assembly', and should they be tested to Clause 6.5 (Heat Resistance). Examples include felt and foam used for padding, kneepad fabric, loops and webbing, and reinforcement fabric on hems.	These materials are part of the 'clothing assembly' and should be tested to Clause 6.5 (Heat Resistance).	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020

EN 469 specifies a The small test 28-005 EN 469: Tear strength specimen shall minimum tear strength 2005 (6.7) 07/02/2020 for non-coated outer be used. If there are problems material of at least 25 N with the when tested according specimens, the to EN ISO 13937larger specimen 2:2000. size can be used. Fabrics for firefighter's This shall be clothing are often made recorded in the with novel structures test report. and technologies to If, when using increase the tensile and the enlarged test tear strength. This can cause problems with the specimen, the specimens tear test method. In continue to fail some cases, threads are pulled out of the normal in such a way that the standard small-width test specimens or the tear says the transfers across the specimens should be specimen. The standard discarded, the says that these specimens should be result shall be recorded on the discarded. test report, Clause 9.4 of EN ISO together with a 13937-2 states "Annex statement that D describes a test the method is method using enlarged considered test specimens (8.2.2) unsuitable for which may be this type of acceptable to samples material. considered untearable by the test using smallwidth test specimens or for special tear-resistant fabrics". However, the results measured with large specimens may be very different, and are often much higher than with small specimens. One sample tested by BTTG achieved ~ 150 N using small specimens and greater than 600 N with large specimens. It may also be the case that these larger specimens also suffer from the same problems, in which case the standard recommends that other methods are considered, however EN 469 only specifies EN ISO 13937-2.

Although all of these results are much greater than the minimum 25 N, and so clearly meet the requirements of EN 469, the problem

different sample sizes, then test reports for similar or the same Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020

remains that if different laboratories use Status: September 2024

05.061	EN 469: 1995 (7.5) EN 469: 2005 (6.10)	Liquid penetration	How can one perform an EN 368 [EN ISO 6530] test on retroreflective elements?	The liquid penetration test should not be performed on retroreflective material.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
23-020	EN 469: 2005 (6.14)	Fluorescent material	There are tapes on the market which are commonly used for firefighter's garments which do not fully meet EN 469, for instance one incorporating red stripes with a central silver retroreflective stripe. The red is described in the marketing literature as 'Fluorescent', but it fails to meet the requirements of clause 6.14, i.e. it cannot be described as fluorescent according to EN 471:2003. Is it possible to use this or similar tapes on garments conforming to EN 469:2005?	Yes, provided that user information state that the tape does not meet the requirements of EN 471. The Type-Examination Certificate should also state that the material is not to be regarded as meeting EN 471.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
25-001	EN 469: 2005 (6.14, Annex B);	Retroreflective; fluorescent; minimum area	EN 469 states that if applied, retroreflective shall encircle the arms, legs and torso. In EN 469 this requirement is understood to be required for fluorescent if it is applied. When measuring the area of fluorescent and/or retroreflective, should we take only the encircling bands into account, or should we also include material that does not encircle?	ALL visibility material should be included in the area calculation, including non-encircling and vertical strips.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020

22-004	EN 469: 2005 (7.4.2)	Heat protection; marking	When an EN 469:2005 garment meets Level 2 for Radiant and Convective Heat for all assemblies, should it be marked: Xf2 Xr2 Or can it be marked: X2	Both solutions may be used, but X2 may only be used if both Xf2 and Xr2 levels are obtained. According to WG 2 the notion Xf2 Xr2 is to be preferred. WG 2 will be asked for clarification in the next	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
				amendment or revision of the standard.	
25-007	EN 469: 2005 (Annex B)	Retroreflective photometric performance	The standard EN 469, annex B allows clothing for fire-fighters with retro reflective materials less than 50mm width. Example: Bands with fluorescent and retro reflective materials (yellow/silver/yellow) Which area must be used for the determination of retro reflective photometric performance?	Only the area of retro reflective material.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020



Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

EN ISO 14116

(EN 533) Rev.: 2019-08

Approval by:	Approved on:
Horizontal Committee	30-09-2019
EU PPE Expert Group	7-2-2020

Sheet number PPE-R/05.	Standard (clause)	Key words	Question		Proposed solution	Comment
18-008	EN 533:1997 (4.1) / EN ISO 14116:20 08 (4.1) / EN ISO 14116:20 15 (4.1)	Index 1; skin contact	EN ISO 14116 forbids contact between the skin and an index 1 material. EN 1149-5 on the other hand requires a sufficient contact between the antistatic side of the fabric and the skin. Does this mean that e.g. a PU-coated antistatic material can not be used for a combined protection against both risks.	index 14116 requir be use	ter material which meets the 2 requirement of EN ISO 5 and the dielectric terments of EN 1149-5 should ad to ensure continuity (e.g. sts, ankles and neck)	Approval by Horizontal Committee: 30/09/2019 Approval by PPE Expert Group: 07/02/2020
26-006	EN ISO 14116:20 08 (6.1.4) / EN ISO 14116:20 15 (6.1)	Flame spread; seams; accessories; hardware	If in a technical files different fabrics (different weight, different composition, coated and non-coated, with or without A/S fibre etc) are used to make the personal protective equipment (clothing), shall the flame spread on the accessories (hardware etc) and the seam be tested on each quality?	fabric certifi It is reassem being materi. There each N worst productests if the received the second	nciple, testing from similar s can be used for cation. ecognised that garment blies can be highly complex, comprised of a variety of ials and combinations. fore, it is recommended that Notified Body considers the case condition for the ct, thereby requiring those t deems necessary to satisfy quirements of the Standards the Regulation.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE Expert Group: 07/02/2020



Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

IEC / EN 61482

Rev.: 2019-08

Approval by:
Horizontal Committee
EU PPE Expert Group

Approved on: 30-09-2019 7-2-2020

Sheet number PPE- R/05.	Standard (clause)	Key words	Question	Proposed solution	Comment
22-016	CLC/TS 50354	Accepta nce criteria	The standard does not specify when the test has to be carried out on garment or on fabric. On what should we base our choice on? The requirement depends on the material tested: In the garment test, the requirements take the behaviour of the accessories and fasteners into account (after exposure, they shall be functional) but the heat flux is not to be measured, however, in the material test (obviously) the accessories are not evaluated but the heat flux does. Which method must be carried out in order to certify a PPE against thermal hazards of an electrical arc? Which requirements are the most important in order to evaluate the protective clothing? In order to evaluate the behaviour of the accessories (and/or other materials) against the exposition of an electrical arc, it is (maybe) not enough to consider the results obtained on fabric.	The current standard is IEC 61482-1-2 since January 2007. This standard is a test method which contains provisions which can be evaluated easily and make it possible to assess the protective properties of the whole garment. Another standard IEC 61482-2 which contains product requirements has been published. Both fabric and garment shall be tested and evaluated.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020



Vertical Group 5: Protective clothing and gloves

EN ISO 9150

(EN 348) Rev.: 2019-08

Approved on:

Approval by:

	RECOMMENDATION FOR USI			Horizontal Committee EU PPE Expert Group	30-09-2019 7-2-2020
Sheet number PPE- R/05.	Key words	Question		Proposed solution	Comment
05.272	calorimet er	How can we cool the molten metal splash calorimeter without producing a thermal drift?		to let it cool down without any tion.	Approval by Horizontal Committee: 30- 9-2019 Approval by PPE expert group: 7-2-2020



CO-ORDINATION OF NOTIFIED BODIES PPE

Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

EN ISO 9151

(EN 367) Rev: 2019-08

Approval by:

Horizontal Committee

EU PPE Expert Group

Approved on:

30-09-2019

7-2-2020

Sheet number PPE-R/05.	Standard (clause)	Key words	Question	Proposed solution	Comment
05.323	EN ISO 9151 (EN 367)	knitted fabrics	Some materials like knitted fabrics undergo a deformation when exposed to the flame. They detach from the calorimeter thus creating an air gap which could result in a higher level of performance. Can this result to be considered as valid?	At this moment there is no general solution. A wire grid could be used to avoid such deformation	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020



Vertical Group 5: Protective

EN ISO 9185

(EN 373) Rev.: 2019-08

***		clothing and gloves		Rev.: 2019-08	
			Journey and gloves	Approval by:	Approved on:
		RFCO	MMENDATION FOR USE	Horizontal Committee	30-09-2019
		I NEGO		EU PPE Expert Group	7-2-2020
Sheet	Standard	Key words	Question	Proposed solution	Comment
number PPE- R/05.	(clause)				
29-013	EN ISO 9185:20 07	Damage definition, PVC sensor	According to point 3.1 of the standard, the definition of damage is any flattening or modification of the roughness.	This is considered to be damage.	Approval by Horizontal Committee: 30-9-
			The attached photo, can it be considered as damage?		2019 Approval by PPE expert group: 7-2-2020
			EL ZI II OL 5 8 L		



Standard

(clause)

EN 532

Key words

Hole, flame-

spread test

Sheet

number

PPE-R/05.

05.283

CO-ORDINATION OF NOTIFIED BODIES PPE

Vertical Group 5: Protectiv clothing and gloves

RECOMMENDATION FOR U

specimen holder

EN ISO 15025

(EN 532)

al Group 5: Protective	Rev.: 2019-08		
othing and gloves	Approval by:	Approved on:	
9.0.00	Horizontal Committee	30-09-2019	
MMENDATION FOR USE	EU PPE Expert Group	7-2-2020	
Question	Proposed solution	Comment	
After the flame expose the charred part of some materials is very weak, and it breaks when the specimen is taken from the specimen holder.	The evaluation of hole shall be made when the sample is placed on the specimen holder.	Approval by Horizontal Committee: 30-9- 2019 Approval by	
When shall the evaluation of the hole be made?		PPE expert group: 7-2-2020	
1) When the specimen is placed on the specimen holder			
2) When the specimen is removed from the			



Vertical Group 5: Protective clothing and gloves

CHEMICAL

(including biological and radioactive risks) Rev.: 2019-08

Approval by:	Approved on:
Horizontal Committee	30-09-2019
EU PPE Expert Group	7-2-2020

			USE		
Sheet		Key words	Question	Proposed solution	Comment
number	(clause)				
PPE- R/05.					
K/U5.					
05.042	EN 369 (5.2)	permeatio n, collecting medium	According to EN 369 (and EN ISO 6529) the collecting medium shall be: "Water or any other liquid having no influence on material permeation resistance". This may be very difficult since the liquid collecting medium shall comply with 3 requirements: - to dissolve the test chemical; - to be inert with regard to the material to be tested, and not modify its permeation properties. - to allow the chemical product to be detected with the sensitivity mentioned in paragraph 6.6 (1µg.cm ⁻² .mm ⁻¹) Combination of the three requirements will sometimes be impossible, e.g. extraction of plasticizers from PVC gloves or detection problems with a paraffin type mineral oil.	It is necessary to verify before testing that the collecting medium has no influence on the tested material and the blank shall be zero. Suggestion: a guide to collecting medium selection should be produced	Approval by Horizontal Committee: 30- 9-2019 Approval by PPE expert group: 7-2-2020
21-011	EN 1073-2 (4.2)	Radioacti ve contamina tion – puncture resistance	Can a material, which obtains a <u>level 1</u> for puncture resistance (EN 863), be used for non-ventilated protective clothing against particulate radioactive contamination (EN 1073-2)?	The requirements, as specified in EN 1073-2, are somewhat ambiguous. The introductory sentence to clause 4 states that at least level 1 shall be reached, whereas Table 1 (clause 4.2) specifies level 2 as a minimum. Guidance should be taken from this table. Hence materials that obtain only level 1 can not be used for this type of protective clothing.	Approval by Horizontal Committee: 30- 9-2019 Approval by PPE expert group: 7-2-2020

05.351	EN 13034	Additiona 1 features	Can embroideries be put on a garment?	The embroidered garment shall pass the low level spray test	Approval by Horizontal Committee: 30- 9-2019 Approval by PPE expert group: 7-2-2020
27-012	EN 13034: 2005/A 1: 2009 (4.1)	Penetratio n & repellency ; FR treatments	If a nonwoven fabric that meets EN 13034 for chemical penetration & repellency has a Flame Retardant treatment applied, must the fabric be retested?	Applied FR treatments can affect the chemical penetration & repellency performance of a nonwoven fabric. The penetration & repellency must be retested before the garment can be recertified to EN 13034.	Approval by Horizontal Committee: 30- 9-2019 Approval by PPE expert group: 7-2-2020
21-026	EN 13034 (4.2)	Chemical penetration, seams etc.	EN 13034:2005 Clause 4.2 states that seams for chemical protective clothing materials shall prevent penetration of liquid. For type 6 suits, the standard specifies that the whole suit spray test (according clause 5.2) should be performed, but is it enough to evaluate the resistance to liquid penetration of seams? A specific method to test the resistance to liquid penetration of seams for all kind of type 6 items (Type 6 suits or type PB 6) is not specified in EN 13034:2005. Should the seams be tested against the four chemicals listed in EN 14325 Table 9?	Garments covering the whole body (coverall, jackets and trousers) shall be subjected to a whole suit spray test to assess the (limited) spray tightness of the garment construction. This is not applicable to partial body protection items.	Approval by Horizontal Committee: 30- 9-2019 Approval by PPE expert group: 7-2-2020
27-002	EN 13034: 2005/A 1: 2009 (5.1)	Partial body protection	Are garments that only have a "secondary" protective function against liquid chemicals (primarily function is against heat, electric arc, EN 471) like separate jackets and pants, still considered as a chemical protective suit? This would demand a spray test. Or can the jacket & pants be considered as "partial body protection" Type 6 [PB], without a spray test (according to clause 5.1)? The fabric itself has passed all the tests according to EN 14325:2004, but the wearer has a low risk to get contaminated during the daily range of operations.	Garments intended to be worn as part of a suit must be subjected to the Spray Test. For single garments, the manufacturer must state in the Instructions for Use that the garment must be worn with a suitable corresponding garment that complies with EN 13034.	Approval by Horizontal Committee: 30- 9-2019 Approval by PPE expert group: 7-2-2020

18-003	EN ISO 13982-1 (6e)	instructio ns for use; test results	Should a manufacturer be allowed to indicate in the instructions for use the real values of test results obtained in EC type examination testing, when the requirement of these tests is expressed as a pass/fail criterion only?	No, according to sheet nr-CNB/P/00.077 RfU PPE-R/00.034, which is an explanation of the Regulation - annex II – item 1.4, the instructions for use must not be misleading for the user. Mentioning a measured value in addition to the conformity statement could make the user suppose that this value can be used to express the real performance of the equipment, and to determine the choice of the most suitable equipment and its conditions of use (for example wear period) taking into account the risk analysis. This is not acceptable since the standardisation working group - after evaluation of the test method - only retained a pass/fail criteria instead of classes.	Approval by Horizontal Committee: 30- 9-2019 Approval by PPE expert group: 7-2-2020
21-023	EN 14126 (4.1.4)	infective agents	1.) For chemical protective clothing, which meets the requirements of EN 943-1, protection against infective agents is claimed. Shall this clothing meet all requirements (tests), specified in EN 14126, clause 4.1.4, or just part of them? 2.) Is it necessary to perform the same material tests on clothing materials, gloves and boots?	1.) The intended use and the corresponding risks and levels of protection shall clearly be stated. From this it should become clear if all or just some of the requirements are relevant and which tests should be performed. It should be noted that EN 14126 was developed with a very wide range of clothing types in mind. 2.) Yes, all constituent materials, exposed to the risk, shall be tested	Approval by Horizontal Committee: 30- 9-2019 Approval by PPE expert group: 7-2-2020

24-024	EN 14605: 2005	Face protection ; User Informati on	Type 3 and type 4 chemically protective suits typically are not supplied with all the necessary items to also protect the face and throat or head and neck (nor hands and feet; however, most makes of gloves and boots will work properly with any suit). Who has the responsibility to find solutions to protection of the body parts that are obviously not protected by donning the suit, especially face/throat or head/neck? Is there a difference between the responsibility for Type 3 and Type 4 suits? Example shows a hood with rather big opening under the chin, i.e. a full face mask will not cover the gap fully.	Preferred solution: A. For both type 3 and type 4: The PPE manufacturer must give detailed instructions how to protect the face/throat (head/neck) by specifying model(s) of face shields or respiratory protective equipment that will give appropriate protection. Acceptable solution: B: For type 3: The PPE manufacturer must give detailed instructions how to protect the face/throat (head/neck) by specifying model(s) of face shields or respiratory protective equipment that will give appropriate protection. For type 4 it is sufficient for the PPE manufacturer to give a warning in the instructions that the user shall make sure the chosen face protection will give the intended protection.	Approval by Horizontal Committee: 30- 9-2019 Approval by PPE expert group: 7-2-2020
29-002	EN 14605: 2005 (4.1, 4.2)	Permeatio n; chemicals	When certifying garments to Type 4, does the chemical chosen for the permeation test have to be one of the four chemicals listed in EN 14325 Clause 4.12?	No. The Type 4 chemical protective clothing material shall meet at least Class 1 for permeation resistance against at least one chemical as chosen by the manufacturer. The chemicals against which the clothing should be assessed, should be specified in the relevant product standard or be derived from the intended use, as described in the information for use.	Approval by Horizontal Committee: 30- 9-2019 Approval by PPE expert group: 7-2-2020

20-004	General	Abrasion, flex cracking, pressure pot	When testing coated fabrics, laminates and membranes to Clauses 4.4, 4.5 and 4.6 of EN 14325:2004, there can be significant differences in classification between visual assessment and when using the pressure pot. Many fabrics that have previously passed using visual inspection have failed when assessed with the pressure pot. Now that EN 13034, EN ISO 13982-1 and EN 14605 have been ratified, what should be done regarding Certificates that have been issued where the fabric was assessed visually?	The notified bodies shall draw the manufacturers' attention to the changes induced by EN 14325 and their impact on material classification and recommend the manufacturers to have their materials assessed against the new test procedures. However, this should not be presented as mandatory.	Approval by Horizontal Committee: 30- 9-2019 Approval by PPE expert group: 7-2-2020
05.318	General	Instructions for use	Should NB's agree on essential harmonised formulations, which are not covered/required by the (pr)EN-standards, to be included into the "instructions for use" for specific types of CPC?	Yes, they should. This is an approach to improve equal treatment of the manufacturers by the European test houses. CPC Types 1, 2, 3, 4, 6 "This clothing gives protection against specific named chemicals." "The test results found under laboratory conditions are only to be regarded as an orientation for practical applications." CPC Types 3,4,6 that are used in connection with respiratory protective devices (RPD) "No general statements can be given for the leak tightness of RPD in connection with the approved suit different from those used under test."	Approval by Horizontal Committee: 30- 9-2019 Approval by PPE expert group: 7-2-2020
05.158; 05.350	General	Pockets	Are open pockets (without pocket flap) especially rule pockets, allowed for this kind of protective clothing?	Open pockets should not be used. All pockets, including pockets with a vertical opening, shall be covered to prevent penetration of liquids	Approval by Horizontal Committee: 30- 9-2019 Approval by PPE expert group: 7-2-2020
05.313	General	Repellenc y	Several manufacturers include in their instructions for use the procedure to be followed for reapplication of the fluorocarbon finish. Does the NB need to verify these instructions?	No, the NB only needs to verify that the manufacturer gives the instruction.	Approval by Horizontal Committee: 30- 9-2019 Approval by PPE expert group: 7-2-2020

14605: dest. Jet 2005/A 1: 2009 17491-4) e.g. detector garment stain > 3x calibration stain area. 2005/A 1: 2009 17491-4) e.g. detector garment stain > 3x calibration stain area. EN ISO 17491-4 requires in clause 9 and 10 to check and record the contaminated / wet area on the internal surface of the test garment, as well as on the absorbent undergarment. Similar requirements apply for the suits to pass the jet test (EN ISO 17941-3), and in EN 13034 for the light spray test. What shall be considered for the spray / jet test if wet spot areas are detected only on the internal surface of one of the three test garments (e.g. seams)? The PPE Regulation Basic Health and Safety Requirements 3.10.2 requires, as far as possible, complete leak-tightness or, failing this, limited leak-tightness or failing this, limited leak-tightness or failing this, limited leak-tightness or failing this, limited leak-tightness of a test garment, because it will not always be in contact with all areas of the internal surfaces of the test garment. If there is contamination of the internal surfaces of the test garment. If there is contamination of the internal surfaces of the test garment. If there is contamination of the internal surfaces of the test clothing, this shall be noted in the manufacturer's information. (NOTE: The standards EN 14605 and EN 13034 (in their English and French versions) use the term fice, meaning 'tor' cg.' meaning' for	22 002	ENI	Comore	EN 14605 alongs 4.2.4.2	Clauses 4.2.4.2 and 4.2.4.2 af	Ammanal bu
i champie:	33-003	2005/A 1: 2009 / EN 13034: 2005/A		liquids (spray test)) requires all suits to pass the test (EN ISO 17491-4) e.g. detector garment stain > 3x calibration stain area. EN ISO 17491-4 requires in clause 9 and 10 to check and record the contaminated / wet area on the internal surface of the test garment, as well as on the absorbent undergarment. Similar requirements apply for the suits to pass the jet test (EN ISO 17941-3), and in EN 13034 for the light spray test. What shall be considered for the spray / jet test if wet spot areas are detected only on the internal surface of one of the three test	EN 13034, have the suit test requirement written in the form: "i.e. the total stain area on any one undergarment of each suit shall be less than or equal to three times the total calibrated stain area." This requirement disregards any contamination or wet area on the internal surface of the test clothing. The PPE Regulation Basic Health and Safety Requirement 3.10.2 requires, as far as possible, complete leak-tightness or, failing this, limited leak-tightness necessitating a restriction of the period of wear. The absorbent detector garment cannot detect all penetrations spots of a test garment, because it will not always be in contact with all areas of the inner side of the test garment. If there is contamination of the internal surfaces of the test clothing, this shall be noted in the manufacturer's information. (NOTE: The standards EN 14605 and EN 13034 (in their English and French versions) use the term 'i.e.' meaning 'that is'. The German version uses the term	Horizontal Committee: 30- 9-2019 Approval by PPE expert
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Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

EN 388

Rev.: 2019-08

Approval by:
Horizontal Committee

EU PPE Expert Group

Approved on: 30-09-2019

7-2-2020

Standar Key words Sheet Question **Proposed solution Comment** number d CNB/P/0 5 (clause) 17-011 Gener Gloves Is it possible to certify gloves according to Yes, this is possible. Approval by Horizontal without EN 388 without fingertip for better fingertip dexterity?. Committee: 30-9-2019 Approval by In EN 388 the test-samples are cut from the PPE expert group: 7palm of the gloves. 2-2020 05.125 Gener performanc If the whole palm (do we agree, that "whole Yes, because the Approval by e levels palm" includes fingers?) of a glove type is reinforcement is only Horizontal made from one layer, but a variant is doubled partial. The benefit of the Committee: 30-9partial reinforcement can only in the main part (without fingers), shall 2019 Approval by we assess the variant with the same EN 388 PPE expert group: 7be stated in the performance profile as for the single-layer-2-2020 informative note, but an type? upgrading of the whole performance-level should be avoided, because it does not cover the fingers. Put the performance classification on the safe side. Coated 05.290 EN Should the abrasion test for gloves with vinyl The end point is reached Approval by gloves, RFU 388: or plastic coating be considered finished when a hole appears in Horizontal abrasion 05.32-2016 when only a part is removed or when it is the whole material. Committee: 30-9-003 r1 (6.1)totally removed? 2019 Approval by PPE expert group: 7-2-2020

32-003 r1	EN 388: 2016 (6.1.5. 3)	Abrasion, layers	Clause 6.1.5.3. states: "Begin the test and check the test specimens after 100 rubs." "If a breakthrough is found when examining the test specimens at a given performance level, the classification will be at the preceding inferior performance level." "When the specimen is constituted of several layers the final result of the test will be the sum of the results of all the layers." Therefore if a glove has more than one unbonded layer, but each individual layer fails to meet 100 rubs, then following Clause 6.1.5.3, the glove would not meet Level 1 and would be unclassified for Abrasion, even if the total number of rubs from all layers added together would exceed 100. Can the layers be checked before Level 1 (100 rubs), and the total number of rubs at which the individual layers still comply be used for classification? Following the same principle, for multilayered gloves with layers at least Level 1, can a test be stopped between Levels and the results for individual layers (number of rubs at which layers still comply) be added together to achieve a Level greater than would be achieved by adding the Levels (number of rubs for the Level) together? E.g. Level 2 + Level 2 + Level 2 = 1500 = Level 2, whereas the layers may actually achieve 600 + 700 + 800 = 2100 = Level 3.	No. For multi-layered gloves, it is not possible to add the number of rubs for the determination of the Level.	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7- 2-2020
18-002	EN 388: 2016 (6.2.3)	Cut resistance	According to clause 6.2.3 it is required, that in the case of several unbonded layers, these layers are tested together for classification of blade cut resistance. In some cases tests on a material combination e.g. leather/kevlar-knitting lead to a lower performance level (eg. level 2) compared to the performance level on an individual material layer (e.g. level 1 for leather, level 3 for kevlar-knitting). Could in case of several unbonded layers, the test be performed on each layer and the classification of cut resistance be based on the highest value obtained (as in clause 6.3.6 tear resistance)?	No, the combination shall be tested as specified in EN 388.	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7- 2-2020
32-009	EN 388: 2016 (6.2.6)	Cut resistance	Performing the blade cut test of EN 388, if a cut through does not occur within 60 cycles, the test must be stopped manually, but the standard fails to state how to proceed: in case the Cn+1 is lower than 3*Cn the cut Index is calculated taking into account the "60" What is the correct procedure to follow?	The "60 cycles result" means the material is highly resistant to cutting and therefore ISO 13997 method shall be used, independently from the 3-times difference between cut cycles before and after the specimen testing.	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7- 2-2020

34-004	EN 388: 2016 (6.2.6)	Blade cut resistance	EN 388:2016+A1:2018 § 6.2.6 states "The test specimen is subjected to the same test and the number of cycles (T) is recorded. The test is manually stopped when T reaches maximum 60 cycles." In such a situation where the test is manually stopped and no actual cut through of the specimen has occurred should a cut index be calculated using a T value of 60 and a cut resistance level be reported?	Yes. However, the test report should also include an informative note to explain that while a cut performance level is reported this is given on the basis that the test was manually stopped after 60 cycles in accordance with EN 388:2016 § 6.2.6 and no cut through of the specimen occurred.	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7- 2-2020
34-003	EN 388: 2016 (6.2, 6.3)	Blade cut resistance	Can the cut resistance method according to Clause 6.3 (EN ISO 13997) be performed and marked for materials that do not dull the blade in the Blade cut resistance test (Clause 6.2)?	Yes.	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7- 2-2020
05.264	EN 388: 2016 (6.4)	Tear strength	A glove with two layers (in the palm, not in the fingers) stitched together in an X pattern. Shall this be considered as bonded or unbonded layers? Shall the performance level of the palm area be considered the performance level for the whole glove or it should be mentioned in the information leaflet that the specific level concerns only the palm area?	It shall be considered as not bonded. It shall be mentioned in the information leaflet that the performance level is only applicable to the palm area.	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7- 2-2020

22-010	EN 388: 2016	3: protection	388:2016 of the follo	n level according to EN owing gloves? (see es a to d attached). What	The results obtained on the weakest parts of the structure should be considered for the marking. This is sometimes in contradiction with taking	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7- 2-2020
			a) Gloves with reinforcement patches almost completely covering the palm and thumb:	b) Gloves with reinforcement patches almost completely covering the palm but not the thumb:	the specimens from the palm of the glove. The informative notice shall give clear information on the meaning of the markings. Glove a) Abrasion resistance: test on the complete structure, not on the separate materials. Tear strength of the reinforcement patches should be tested and taken into account if higher than that of the other materials in the palm structure. Puncture and cut resistance should be tested on the weakest spots. Glove b) For cut, tear and puncture see solution a) if the fingers are reinforced and solution c) if they are not. Glove c) Test without taking into account the reinforcement patches, but make a note in the consumer	
			c) Gloves with reinforcement patches covering some places on the palm and thumb:	d) Gloves with only the palm reinforced by stitches. The abrasion and cut resistance of the complete structure is clearly higher than that of the component materials (outer layer and lining):		
					information brochure stating that the areas covered by reinforcement patches may have a higher protection level. Glove d) Abrasion and cutting: test with the stitches, it will be impossible to take test specimens otherwise. Tear on separate layers. Puncture: on all layers together.	

27-001	EN 388: 2016	Leather; description; thickness	 Shall a manufacturer of leather gloves indicate the thickness of the leather in their Technical File. For module C2, do these values become requirements that must be checked? 	1) Yes 2) Information retained in the Technical File relating to thickness may be useful for determining product conformity	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7- 2-2020
27-005	EN 388: 2016 (7,8)	Marking, Information	For gloves with reinforcement, patches the performance levels of the weakest parts/spots of the structure shall be considered and stated next to the pictogram (see RfU 22-010, glove c). Can the performance levels of the reinforcement patches be additionally stated a) next to the pictogram (2nd row of levels) and b) in the manufacturer's information?	a) The performance levels of the reinforcement patches are not to be shown additionally next to the pictogram (as a 2nd row of levels) as this can be confusing and misleading for the enduser. b) The performance levels of the reinforcement patches can additionally be mentioned in the manufacturer's information.	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7- 2-2020



Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

EN ISO 374

Gloves for chemicals and micro-organisms
Rev.: 2019-08

Approval by:	Approved on:
Horizontal Committee	30-09-2019
EU PPE Expert Group	7-2-2020

Sheet number PPE- R/05.	Standard (clause)	Key words	Question	Proposed solution	Comment
26-012	EN ISO 374-1: 2016	Marking	Article 17.1 of the PPE Regulation says that CE marking must be affixed to each piece of manufactured PPE so as to be visible, legible and indelible throughout the expected life of the PPE. However, if it is not possible in view of the characteristics of the products, the CE marking may be affixed to the packaging. For single use protective gloves, usually packed in a box containing 100 pieces, is it possible to consider the economic reason as the characteristic of the product which allows the CE marking to be affixed to the box instead of marking on each piece?	The PPE Regulation allows this "in view of the characteristics of the product". The PPE Guidelines confirms that "this would be justified where affixing it to the product was not achievable under reasonable technical and economic conditions" (Section 4.4), 1 st Version April 2018). EN 420 also allows this.	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7-2-2020
28-003	EN 16523- 1:2015	permeation, gloves with irregular design	For the module B or C2 evaluation of irregular gloves, shall we take the lowest result for permeation between the palm and cuff areas?	The classification is based on the result from the area having the lowest breakthrough time.	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7-2-2020

33-001	EN ISO 374- 1:2016 / EN 374- 4: 2013	Degradatio n; Hydrofluori c Acid	The current list of chemicals in Table 2 of EN ISO 374-1:2016 includes Hydrofluoric Acid 40% (CAS 7664-39-3) and clause 5.3 requires that all chemicals claimed in the marking should be tested according to EN 374-4 (Degradation). However, the degradation test method requires the use of glass vials for this test, which is not suitable for use with Hydrofluoric Acid. How should this problem be approached?	It is possible to make the test using polystyrene screw cap vials 12 mm inner diameter in the neck (just as the prescribed 20 ml glass vials). They can resist the 40 % Hydrofluoric Acid for an hour though do show some whitening. NOTE: The vapour pressure of 40% Hydrofluoric Acid is so high that the test needs to be performed in a fume cabinet, and the test equipment should be protected from corrosion due to the vapour.	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7-2-2020
33-002	EN ISO 374-1:2016	Permeation levels; User information	EN ISO 374-1:2016: Clause 7 states "The information supplied by the manufacturer shall be in accordance with the requirements for information as defined in EN 420. It shall also include the results of 5.2, 5.3, 5.4 the list of all the chemicals to which the protective gloves have been tested and the performance levels obtained in permeation testing". This list can be interpreted to consist of either: a) All those tested and achieving level 1 or above (Note: Table 1 of EN ISO 374-1 does not include level 0) or b) Everything tested including those that achieved level 0 However, for certification to the Regulation there is a third possibility to only include the tested chemicals where the manufacturer wishes to make a claim. Which of the above options are considered to be acceptable?	Some customers will complete exploratory/development testing against many different chemicals, for example those which may be new to the list within EN ISO 374-1:2016 and unfamiliar to the customers. If they are unsure on how their gloves may perform, they may wish to carry out this investigative check testing but not claim the levels achieved if they are below the expected. Proposed solution is therefore that only the chemicals that the manufacturer wishes to claim protection against should be listed. To list potentially up to 17 level 0 results on an artwork or UIS documents would appear to have limited value and distract from the more useful information. It would also take up a large quantity of the user instruction sheets/box artwork which already needs to include a lot of mandatory information to comply with EN ISO 374-1:2016.	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7-2-2020

32-005	EN374- 4: 2013	Sampling, puncture test, irregular construction, chemical protective gloves	Clause 5.1 states: "Select three gloves for testing." "In the case of irregular and/or multiple construction, one sample shall be tested from each area. Using the appropriate circular die of 20 mm, cut 6 specimens of each glove for a total of 18 specimens. For each glove, 3 specimens will be exposed to the challenge chemical and 3 specimens will be unexposed." "Select specimens so that they are homogeneous and representative of the glove's primary construction. Avoid embossed patterned areas or other areas of varying thickness when cutting these specimens". For gloves of irregular and/or multiple construction, how should this be interpreted? Should sets of three specimens be taken from each area, or should the three specimens from each glove be distributed to get at least one specimen from each area. In case of a glove with significant difference between palm area and back of hand area, shall 6 specimens be taken from each glove (e.g. 1+1 from palm and 2+2 from back), or should 12 specimens be taken (3+3 from palm and 3+3 from back)?	"one sample from each area" means that 2 sets of 3 specimens shall be taken from each of the different areas of each glove giving a total of 18 specimens for gloves of homogeneous construction, 36 from gloves with two different areas, etc.	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7-2-2020
34-005	EN ISO 374- 1:2016 (Table 2)	Permeation against chemicals	Table 2 contains the challenge chemicals for the Permeation testing of protective gloves. Within the table Formaldehyde is named under letter T. The concentration is given as 37%. A solution of Formaldehyde with such a high concentration tends to polymerise from within. Therefore, a stabilising agent is added. Which stabilising agent should be used?	The most commonly used stabilising agent is Methanol. Therefore, it is suggested to use the commercially available mixture of 37% Formaldehyde and approximately 10% Methanol.	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7-2-2020



Standard

(clause)

Key words

Sheet

number

PPE-

CO-ORDINATION OF NOTIFIED BODIES PPE

Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

Question

Gloves

General & Miscellaneous Rev.: 2019-08

Approved on:

Approval by:

:	Horizontal Committee	30-09-2019
	EU PPE Expert Group	7-2-2020
	Proposed solution	Comment
ec gc	are of the opinion that these tive gloves belong to PPE of ory I.	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7-2-2020
	he knitted material and the I material shall be tested	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7-2-2020
e b ey ne	b can decide on a case by asis if perform the test as described Standard (all the layers er);	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7-2-2020
le t t	rmine the pH content of each material which will have to he following requirement: H<9,5.	

R/05. 27-011 General Gloves; VG5 What is a category of gloves protecting against cold if a cold; prote categorizati temperature of cool environment is categ on equal or higher than -5°C? 23-007 EN 420: Both pH value In a case of knitted gloves partly 2010 coated by plastics or rubber, which coate (4.3.2)parts of glove should be tested for pH value to confirm that it meets the requirement of the standard (back side of glove not coated or partly coated and palm side - totally coated)? 32-010 EN 420: pH value Point 4.3.2 of EN 420:2003+A1:2009 The 2003 says: case (4.3.2)"Determination of pH shall be - the according to EN ISO 4045 for leather in th gloves, and EN 1413 for other toge materials. Following amendments or shall apply: - det - if gloves are made of more than one singl layer, all layers shall be tested mee together;" 3,5< Issue: for some Customers it may be convenient from an economic point of view to only perform the test on each single layer. Approval by 19-012 EN 420: Does clause 4.3.3 Determination of Chromium This clause intended to address 2010 chromium (VI) content exclude Horizontal testing of leather gloves. Leather Committee: 30-9-(4.3.3)gloves shall always be tested on chemical protective gloves? their Cr-VI content. 2019 Approval by PPE expert Other gloves shall only be tested group: 7-2-2020 in case of doubt. A declaration of the manufacturer that the product is free of Cr-VI shall be required. 19-011 EN 420: Protein Is clause 4.3.4 Determination of The clause makes testing of Approval by 2010 content extractable protein content applicable extractable protein content Horizontal (4.3.4)to chemical protective gloves made mandatory. Committee: 30-9from natural rubber? 2019 Approval by The note can be considered as a PPE expert Does the NOTE exclude them? warning to be very careful with the group: 7-2-2020 interpretation of test results but is not in contradiction with the clause.

20-006	EN 420: 2010 (4.3.4)	Gloves, natural rubber, protein content	EN 420 (2010) foresees the determination of extractable protein content for natural rubber latex gloves in section 4.3.4. Is this mandatory for natural rubber gloves that are worn with undergloves (this is the case of containment enclosure gloves)?	Strictly spoken the test should be carried out, but it gives no useful information. Therefore warnings should be given in the information for use: - A warning mentioning that this glove is liable to cause allergies due to the natural rubber - A wording indicating that this glove has to be worn with under-gloves of at least the same length as the rubber glove	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7-2-2020
18-014	EN 420: 2010 (5.3)	Water vapour transmissio n and absorption	1. The way the clause is written "If required," makes the requirement optional but according to Regulation 2016/425 Annex II 2.2 it should be considered in any case. 2. Nothing is said about where to take the test sample from.	1. Non-compliance with this requirement, i.e. in the case of fully impermeable gloves, shall be mentioned in the user's information and recommendations to improve the comfort should be given e.g. by limiting the time of use. 2. Test specimens shall be taken from any relevant part of the glove	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7-2-2020
23-006	EN 420: 2010 (5.3.1)	Water vapour transmissio n	1. According to EN 420:2010, p. 5.3.1: "Where practicable, protective gloves shall allow water vapour transmission" and "If required, gloves shall have a water vapour transmission". What do "where practicable" and "if required" mean? In what cases are they applicable? 2. How should the test be performed when the glove is made of more than one layer of material – on each material layer separately or on assembly of materials? (the question concerns the test of water vapour transmission and absorption). 3. How should the assessment be conducted when the glove is made of different materials on back and palm side?	1. If water vapour transmission is claimed, this property shall be tested 2. All layers shall be tested together for water vapour transmission and absorption 3. They shall be assessed separately and this shall be reported in the information for use	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7-2-2020

19-004	EN 421: 2010	Radiologist 's gloves; ionizing radiation	A manufacturer argues that EN 421 is not a suitable standard to measure the protection level of gloves for the medical market (protection of radiologists). Referring to EN 421, § 5.1.1: The only results obtained and required to be reported are lead equivalence values in mm. There is no way to determine with this rather simple test what the percentage scattered radiation is absorbed by the gloves. The proposal is to discontinue use of EN 421 as product standard for this type of PPE and instead to use IEC 61331-1:2014 Protective devices against diagnostic medical X-radiation - Part 1: Determination of attenuation properties of materials (most recent version: EN 61331-1:2014)	EN 61331-1:2014 appears to be more suitable for medical X-ray applications, whereas EN 421:2010 is more adapted to the needs of the nuclear industry. If used for the certification of protective gloves for radiologists, EN 61331-1:2014 shall be used in conjunction with EN 61331-3:2014. Results are (as in EN 421) expressed in mm Pb equivalent).	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7-2-2020
34-008	EN 511: 2006 (4.5 / 5.5)	insulation against cold, heated gloves	Protective gloves are tested for convective cold on a thermal hand model according to clause 5.5 (Annex A), with four performance levels defined in clause 4.5. The test is intended for standard gloves made with insulating material, however it is possible to incorporate active heating (electrically powered) in a glove, which may result in an increased performance level for convective cold. How should a glove with electrically powered active heating be assessed against clause 4.5?	The glove should be tested with the heating system inactive, and can additionally be tested with the system active. The testing with the system inactive should be used for classification according to the standard. The information for use can include the additional information regarding the test and performance with the system active.	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7-2-2020
19-010	EN 659: 2008	Firefighter's gloves; cuffs	A fire-fighters glove, with a knitted cuff has been submitted for testing to EN 659. What tests should be carried out on the cuff material, which is of knitted construction and differs from the main part of the glove	pH and burning behaviour shall be tested. If the cuff is – in use – covered by the sleeve of the fire fighter's jacket convective and radiant heat don't need to be tested.	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7-2-2020
22-013	EN 659: 2008	Firefighter gloves; heat transfer	The general requirements (clause 3.1) demands separate tests if the material in front and/or back of the glove is different. Clause 3.8 (convective heat) requires sampling from palm and back. Clause 3.9 (radiant heat) requires sampling from the back. Can we accept a reduced protection at the side of the fingers because it's neither front nor back? If the assembly construction in these parts is different from front/back, a different (reduced?) protection performance can be expected.	The assembly at the side part of the glove's fingers should be tested on convective heat insulation, if it deviates from the assembly at the front/back of the gloves.	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7-2-2020

24-009	EN 659: 2008	Firefighter gloves; features	1. In EN 659:2008 there is no requirement concerning elements of gloves such as hook and loop fasteners and retroreflective/fluorescent strips. What requirements shall these elements of gloves meet? What test method shall be used for testing them? 2. Shall a label inside a glove comply with the requirement of burning behaviour or heat resistance (tested like the lining material)?	1. The hook and loop fasteners shall be tested for flame resistance according to EN 469:2005 6.1.6. Testing should be done on the fastener when closed, as presented on the glove. The fastener shall function after the test. Retroreflective/fluorescent material shall conform to the requirements of EN 469:2005: Annex B.3.2 (flame spread). Other exposed items shall also pass the flame spread requirements of EN 469. 2. A label that will lie next to the skin shall meet the requirement for the lining material of gloves (heat resistance according to clause 3.11 of EN 659:2003).	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7-2-2020
22-014	EN 659: 2008	Firefighter gloves; marking	EN 659 requires the marking of every protective glove the number of the standard, EN 659, and the firefighter pictogram [ISO 7000-2418]. Furthermore the marking must be carried out according to the requirements of EN 420. The EN 420 says in 7.2.1.1.e: "The number of the specific standard and the performance levels must be indicated." Does it mean we have to put all performance levels on the gloves?	Only the pictogram and the number of the standard should be on the gloves.	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7-2-2020



Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

Electrostatic charges EN 1149 series Rev.: 2019-08

Approval by:
Horizontal Committee
EU PPE Expert Group

Approved on: 30-09-2019 7-2-2020

Sheet number PPE-R/05.	Standard (clause)	Key words	Question	Proposed solution	Comment
28-012	EN 61340	Electr ostatic s	Do members of VG5 consider the use of the EN 61340 standard appropriate as a means of showing compliance with the PPE Regulation?	No. As this series of standards does not address protection of the wearer, this series cannot be used to demonstrate compliance with the EHSR of the PPE Regulation.	Approval by Horizontal Committee: 30- 9-2019 Approval by PPE expert group: 7-2-2020
34-010	EN 1149- 5:2018 (4.2.1}	Surfac e resista nce; Surfac e resisti vity	1) For assessment according to Subcl. 4.2.1 of EN 1149-5, should be tested the surface resistance or surface resistivity? (the scope of the standard EN 1149-1 is surface resistivity; but in the EN 1149-5 is required surface resistance; surface resistivity = surface resistance x 19,8) 2) Subcl. 4.2.1 says: "Geometric mean of surface resistance of less than or equal to 2,5 x $10^9 \Omega$ on at least one surface, tested according to EN 1149-1." The value less than or equal to 2,5 x $10^9 \Omega$ on at least one surface is meant as the obverse side or the reverse side?	 EN 1149-5 requires a maximum surface resistance of 2.5 x 10⁹ Ω. Calculation of Surface resistivity is required by EN 1149-1, but is not required for certification according to EN 1149-5. Result from obverse side or the reverse side is accepted. 	Approval by Horizontal Committee: 30- 9-2019 Approval by PPE expert group: 7-2-2020

34-016	EN 1149- 5:2018 (4.2.2.2, 4.2.2.3)	Attach ments; Condu ctive parts	Are non-conductive attachments to the outside of garments, greater in thickness than 2 mm, acceptable? e.g. plastic buttons (> 2 mm thick), plastic buckles (> 2 mm thick) and plastic press studs (see pictures below)	EN 1149-5:2018, clause 4.2.2.2, states that "Exposed cords, drawstrings, etc. shall not exceed 20 mm in width." For other items, the guidance in CEN/CLC/TR 16832 and IEC/TS 60079–32–1 (CLC/TR 60079-32-1) should be followed. CEN/CLC/TR 16832:2015 Table A.2, and CLC/TR 60079-32-1:2018 Table 3, set a limit of 400 mm2 (4 cm2) for the maximum area of an insulating solid material for use in the most	Approval by Horizontal Committee: 30- 9-2019 Approval by PPE expert group: 7-2-2020
				sensitive atmosphere, when attached to outermost (dissipative) material. EN 1149-5:2018, clause 4.2.2.2, states "Attachment to the outside of garments shall be done in such a way that separation between the attached elements and the electrostatic dissipative material is avoided."	

Images for PPE-R/05.34-016















Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

Cold protective Clothing EN 342, EN 14058

Rev.: 2019-08

Approval by:

Horizontal Committee
EU PPE Expert Group

Approved on: 30-09-2019 7-2-2020

Sheet Standard F		Key words	Question	Proposed solution	Comment
number PPE-R/05.	(alousa)		Q 000000		
05.299	EN 342:2017	combination of cold protection and chemical protection	What are the requirements, test methods, and categorization of a cold protection suit worn over chemical protection? It is used to protect the user of a chemical protective suit against cold of gases liquefied under pressure to –60°C, and to protect also the devices against these "cold" chemicals. The chemicals protective suit itself fulfils the permeation requirements	General requirements of the Regulation (design principles, innocuousness of PPE and comfort and efficiency) shall be checked. This includes testing of strength; puncture, tear, seam strength, flex cracking at low temperature and resistance to ignition. Requirements of EN 943-2 are used for evaluating the level of performance.	Approval by PPE expert group: 7-2- 2020
22-017 (Q1)	EN 342: 2017; EN 14058: 2017	Categorization; scope	According directive, high risks are temperatures lower than –50°C and low risks are situations of "atmospheric conditions that are not of an extreme nature.". EN 342 covers the medium risks, but it's not very clear if scope of the standard EN 14058 addresses category I or II.	EN 14058 was developed for protection in cool environments (higher than -5 °C), which corresponds to cat. I PPE. However, it contains also an optional manikin test. Depending on the results of the manikin test the garment can be cat I or cat II (see tables in annex B of the standard). Results should be interpreted in connection with the rest of the standard clothing used in the test.	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2- 2020

27-015	EN 342: 2017	ensembles and garments; cap	In the EN 342 p. 1 Scope it is stated that: the standard does not include specific requirements for head wear, footwear and gloves intended to prevent local cooling.	Yes, it is possible to certify a two piece suit with cap according to EN 342:2017. The labels in each item must indicate that all items must be worn together.	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert
			Is it possible to certify according to EN 342 a two piece suit with cap?		group: 7-2- 2020
33-005	EN 342: 2017 / EN 14058:2017 Clause 5	pre-treatment; design and comfort; innocuousness	EN 342 and EN 14058, Clause 5 (Pre-treatment) states: "The specimens used for tests specified in 6.2 to [6.5 / 6.7] shall be pre-treated by cleaning, which shall be in line with the manufacturer's instructions on the basis of standardized processes." In each standard it is stated: "4.1.1 General requirements. When tested in accordance with 6.2.1 the following requirements shall be met" [design and comfort requirements] "4.1.2 Innocuousness. When tested in accordance with 6.2.2 the requirements of EN ISO 13688:2013, 4.2, shall be met with regard to innocuousness." "6.2.1 General requirements. The general requirements. The general requirements shall be assessed by visual inspection and by hand." "6.2.2 Innocuousness. The innocuousness of the protective clothing shall be tested according to EN ISO 13688:2013, 4.2." For design, ergonomics and comfort assessments, garments are usually assessed in their new condition. In EN ISO 13688 innocuousness is tested on new material. How should Clauses 6.2.1 and 6.2.2 of both standards be assessed?	Clause 5 (Pre-treatment) should exclude 6.2 for both standards. Clauses 6.2.1 (design and comfort requirements) and 6.2.2 (Innocuousness) should be tested without pretreatment.	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2- 2020



Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

EN 343

Foul weather clothing Rev.: 2019-08

Approval by:

Horizontal Committee

EU PPE Expert Group

Approved on:

30-09-2019

7-2-2020

Sheet number PPE-R/05.	Standard (clause)	Key words	Question	Proposed solution	Comment
17-007	General	Categorization; combination of properties	If we receive a PPE where the manufacturer's instructions show the foul weather and the heat and flame pictograms, can a Notified Body certify this PPE only against the thermal risks? What if instead of the foul weather pictogram (category I), a static electricity pictogram (category II) is used?	It is impossible to make partial certificates for the same PPE and hence all relevant essential requirements shall be checked. The PPE categorization and the corresponding certification procedure are determined by the "highest" type of risk.	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020 NOTE: See Horizontal Sheet PPE-R/00.005. The higher categorization applies to all protection offered by the PPE.
26-014	EN 343: 2019	Removable sleeves	Is it possible to mark a jacket with removable sleeves according to EN 343? Zippers are usually used to attach the sleeves and they cannot be taped. Water penetration can occur and the product is not waterproof.	Yes. However, the closures must provide adequate protection against water penetration. The User Information must explain the limitations of use.	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020 NOTE: remains valid for EN 343:2019.



Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

EN 407 EN 12477

See also 'Gloves - General' Rev.: 2019-08

Approval by:

Horizontal Committee 30EU PPE Expert Group 7-2

Approved on: 30-09-2019 7-2-2020

Sheet number PPE-R/05.	Standard (clause)	Key words	Question	Proposed solution	Comment
05.245 r3	EN 407: 2004	Categorization	Under which conditions shall products complying with EN 407 belong to category III?	Solution: The intended use and the type of risk determines the category. See Annex for VG5 recommendation. NOTE: Radiant Heat test method has changed; hence different levels in the 2004 version.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2-2020
05.337	EN 407: 2004 (5.2)	Categorization; contact heat	Which category of PPE is the most appropriate one for gloves of performance level "1" (test at 100°C)	Category II The manufacturer is responsible for product categorization.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2-2020

29-020	EN 407: 2004 (5.2)	Classification; contact heat	According to EN 407:2004, Section 5.2, " For contact heat performance levels of 3 or 4, the burning behaviour according to 6.3 shall be performed. The product shall record at least level 3 in the burning behaviour test, otherwise the maximum contact heat performance that shall be reported is level 2."	No, it is not possible according to EN 407.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2-2020
			However, in the introduction to Section 5 is established that: " the defined performance level depends upon the intended field of application of the glove. Only the tests which are relevant to the risks in the intended enduse application shall be carried out"		
			Is it possible to classify / certify a glove as class 3 contact heat, in case you have not requested Flammability Testing?		
			Can you certify a glove as high protection for contact heat risk without checking the flame test?		
			NOTE: point 8 of the standard states:		
			"The manufacturer shall indicate in his information supplied with the gloves: A clear warning that the glove must not come in contact with a naked flame, if the glove has a performance level 1 or 2 in burning behaviour"		

34-014	EN 407: 2004 (5.4)	Radiant heat level	EN 407 requires for performance level 1 (radiant heat transfer RHTI 24) >7s, when tested according to EN ISO 6942:2002, method B at 20 kW/m². However 7s are needed to obtain RHTI 24 without a test sample; thus every material will pass. There is the same problem with the radiant heat level in EN ISO 11611 and EN ISO 11612. Should the minimum performance levels in these standards be revised?	Yes, the minimum performance levels in these standards should be revised. VG5 requests CEN/TC 162/WG 2 and 8 to clarify and improve these standards; amendment / revision is needed. Note: Further standards might need improvement as well; Level 1 from >7s to <20s; EN 15384 requires >11s.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2-2020
29-019	EN 407: 2004 (5.6)	Thermal protection; molten metal	According to EN 407:2004, section 5.6, the test of large splashes of molten metal is only applicable to iron. However, the same point specifies that other metals should be tested as required: "This test only applies to molten iron. Other metals shall be tested as required. The corresponding test results shall be given on the information supplied by the manufacturer (clause 8)." If the test is performed with other metals, is it possible to classify the level of performance according to Table 6? If not, how should it be classified?	It is not possible to use this classification on the marking for any other metal.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2-2020

27-013	EN 407: 2004 (4.2)	Emergency removal	According to EN 407:2004, 4.2: "Unless otherwise requested, protective gloves of performance levels 3 and 4 in all tests described in 5.1 to 5.6, shall be manufactured so that they can easily be removed in case of emergency". In this case a test method and requirement for firefighter gloves are applicable. The time for removal of gloves shall not be greater than 3 s for both procedures of test: dry and wet. For gloves that meet level 3 / 4 in any of the tests from 5.1 to 5.6 is it necessary to test the gloves after both dry and wet conditioning?	The removal test can be carried out only in the dry state if the manufacturer's information states that the glove is not intended for use in wet conditions.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2-2020
24-010a	EN 12477: 2001 (5.7)	Convective	According to EN 12477:2001 clause 5.7 (convective heat resistance) all the individual values shall comply with the minimum performance required in table 2 (performance level 2, HTI ≥ 7). The result for gloves shall be given as the arithmetic mean of the three values. What about gloves reaching i.e. performance level 3 for convective heat resistance? Shall the individual values in this case comply with the minimum performance level 2 or 3 (HTI ≥ 10)?	In a case of both: 2 and 3 level of performance for convective heat resistance of gloves the individual values of HTI shall comply with the minimum performance level 2.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2-2020

Annex to Technical sheet 05.245: category III (underlined)

$\frac{\text{Property} \rightarrow}{\downarrow \text{Product}}$ $\frac{\text{standard}}{}$	Burning behaviour - Afterflame time (s) - Afterglow time (s)	Convective heat (EN 367) - HTI (s)	Radiant heat (20 kW/m²)	Contact heat - Contact temp (°C) - Pain threshold time (s)	Welding drops - Number of drops	Molten metal splashes mass (g) - Aluminiu m
						- Iron
EN 407:2004 Protective gloves	< 2 < 5	> 18	> <u>95</u>	<u>500</u> ≥ 15	> 35	200
against thermal risks (category 2	< 3 < 25	> 10	<u>> 50</u>	350 > 15	> 25	120
or 3) Levels	< 10 <120	> 7	> 20	250 > 15	> 15	60
	< 20	> 4	>7	100 > 15	> 10	30



CO-ORDINATION OF NOTIFIED BODIES PPE

Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

EN 510

Rev.: 2019-08

Approval by:
Horizontal Committee
EU PPE Expert Group

Approved on: 30-09-2019 7-2-2020

Sheet number PPE-R/05.	Standard (clause)	Key words	Question	Proposed solution	Comment
05.252	EN 510: 1993	Entanglement with moving parts	Can a <u>vest</u> without sleeves be considered as within the <u>scope</u> of EN 510?	Can be certified but not marked with EN 510.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
05.353	EN 510: 1993	External pockets	Why are pockets with external opening forbidden? When they are closed, they are not more dangerous than the front closure system. When not closed, it could be dangerous, but this is also the case when the coverall is not closed. When the instructions clearly mention the coverall and its pockets need to be closed. It is the user's responsibility when the garments are not worn properly.	External pockets are forbidden.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020



CO-ORDINATION OF NOTIFIED BODIES PPE

Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

EN 14404

Rev.: 2019-08

Approval by:

Horizontal Committee
EU PPE Expert Group

30-09-2019

Approved on:

7-2-2020

Sheet number PPE-R/05.	Standa (claus		Key words	Question	Proposed solution	Comment
18-004	6.2.2		PPE; definition	Are knee protectors of type 1 (fastened to the leg), type 2 (in trousers), type 3 (kneelers not attached to the body) and type 4 (incorporated knee protectors in devices with additional functions) PPE and do they belong to category II of the PPE Regulation?	Type 1 and 2 are PPE of category II. Type 3 are not PPE (not attache to the body). Type 4 are not PPE, except if attached to the body.	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2- 2020 The PPE Regulation and PPE Guidelines clarify the categorization of these items.
33-006			Scope	Can knee pockets be put on PPE clothing without claiming EN 14404?	Yes, if the manufacturer does not claim EN 14404 then knee pockets can be put on the clothing without making any reference to the standard. As soon as a reference to EN 14404 is stated in the label/UI the tests as per EN 14404 must be performed and the knee pads should be referenced in the UI.	Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2- 2020

23-003	3.3, 6.2, 8.1	Type 2; Trousers	1) Can type 2 knee protectors (pads) exchangeable in trousers be certified and comply with EN 14404 independent of the trousers? 2) Can type 2 knee protectors (pads) exchangeable in trousers and marked with EN 14404 be certified for the pad manufacturer alone if he does not place the trousers on the market or defines the appropriate trousers?	1) No, because according to EN 14404 clause 6.2 (testing with trousers), 6.10.2 (ergonomic testing with trousers), 8.1 (information about trousers) the combination of trousers and knee pads needs to be tested and certified. 2) No, because the EU type approval certificate shall be issued for the manufacturer of the combination of trousers and knee pads or for the pad manufacturer only for specific trousers (e.g. defined by trousers' manufacturer and article number for appropriate trouser design, material and knee pad pocket shape).	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2- 2020
26-007	5.2.5; 6.5	Penetration resistance	During penetration testing of a knee protector the required minimum force can't be applied to the test spike (nail) after a movement of 25mm (see also EN 863 clause 4.3). The protector resists complete penetration due to the thickness of the protector. Required is a resistance against penetration at a force of at least 100N for level 1. Does the knee protector meet the requirement of clause 5.2.5?	Clause 5.2.5 requires that a knee protector shall resist at a required force complete penetration and the internal face of the protector shall not deflect by more than 5mm. It is required that the minimum penetration force can be applied to the test spike. A knee protector cannot be said to meet 5.2.5 if the test spike moves max. 25mm without penetration but the required penetration force can't be applied (e.g. thick soft foam). The maximum test spike movement of 25 mm shall be increased as appropriate, such that the required force, as specified in 5.2.5 of EN 14404, can be applied. The test shall be terminated if the internal face of the knee protector deflects by more than 5 mm, or the spike penetrates the specimen.	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2- 2020



CO-ORDINATION OF NOTIFIED BODIES PPE

Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

EN 16689

Rev.: 2019-08

Approval by:
Horizontal Committee
EU PPE Expert Group

<u>Approved on:</u> 30-09-2019 7-2-2020

Sheet number PPE- R/05.		Key words	Question	Proposed solution	Comment
33-007	EN 16689: 2017 (7.8.2)	pre- treatment, viral penetration resistance	The pre-treatment for the viral penetration test states: (paragraph: 7.8.2.) "The samples shall first be subjected to pre-treatment by laundering or dry cleaning as specified in 5.2 and then be subjected to pre-treatment by oven exposure as specified in ISO 17493 at a temperature of 140°C +5/-0°C for 5 minutes, except that no measurement or observation shall be made. This sequence of pre-treatments shall be repeated a second time. Testing following the last oven exposure shall take place within 5 minutes of the oven exposure. Following the last pre-treatment, specimens shall be taken from the moisture management component seam for viral penetration resistance testing." There are 2 x oven tests; what sequence of treatments should be followed if 5 or 25 cleaning cycles are claimed? Does this mean two sets of oven test and pretreatments, e.g. 2 x 5 or 2 x 25 cleaning cycles, or the first oven test in the middle of the cleaning pretreatments?	The first oven test occurs during the manufacturer's claimed number of cleaning cycles. If, for example, the maximum number of wash / dry cycles is 25: 13 wash/dry cycles Oven exposure 12 wash/dry cycles Oven exposure In cases where the number of cycles requested is 5: 3 wash/dry cycles Oven exposure 2 wash/dry cycles Oven exposure 2 wash/dry cycles Oven exposure	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7-2-2020



PPE-R/05.05-110 Version 02

	RECOMMENT	JATION FO	K U3E	
Number of pages: 1			Approval stage:	Approved on:
Origin: Vertical Group 5			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022
Question related to 🛛 F	PE Regulation PPE Guidelines	⊠ EN/prE	N: EN 366	Other:
Article:	Annex:	Clause:		
Key words:				
Radiant heat; colour				
Question:				
The results may be very d	ifferent following the colour of material, v	white or dark.		
Which colour shall be test	ed if the garment is produced in several	different colou	rs?	
Solution:				
Test minimum 1 sample o	f each colour and proceed further with th	ne colour that g	gave the worst result.	



PPE-R/05.05-156 Version 02

Number of pages: 1			Арр	roval stage:	Approved on:
Origin: Vertical Group 5			\boxtimes	Vertical Group Horizontal Committee EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022
Question related to 🛛	PPE Regulation PPE Guidelines	⊠ EN/prEN (6.4)	l: EN	N ISO 11612: 2015	☐ Other:
Article:	Annex:	Clause:			
Key words: Dimensional change, kn	itted fabrics				
Question: The 5% maximum chang	ge quoted in these specifications is neither a	opropriate no	r ac	curately measurable for ki	nitted fabrics.
Solution:					
The 5% figure is maintain	ined as a rule.				
The notified body may ju a higher shrinkage is ac	udge as an expert opinion that the knitted ma ceptable.	terial is streto	chab	le enough not to affect the	protective properties, and
The real shrinkage shou	ld be mentioned in the information for use.				



PPE-R/05.05-184 Version 02

	TALOOMINILIA	<u>DAIION I O</u>	IV OOF	
Number of pages: 1			Approval stage:	Approved on:
Origin: Vertical Grou	ıp 5		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	16.06.2021 01.10.2021 18.11.2022
Question related to		⊠ EN/prE	EN: EN 1082	☐ Other:
Article:	Annex:	Clause:		
Key words:				
Butcher gloves				
Question:				
The butcher gloves	are generally repaired, when a chain-mail bre	aks down.		
What procedures to	apply if these repaired butcher gloves are pla	ced on the ma	rket as a new product with a ne	w name?
Solution:				
A repaired product p	placed on the market has to be considered as	a new product	•	
The VG is concerne	d about the (un)safety of repaired PPE.			



PPE-R/05.05-188 Version 02

	NECOMINIEND	AHONIO	N USL	
Number of pages: 1			Approval stage:	Approved on:
Origin: Vertical Grou	ıp 5		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022
Question related to		⊠ EN/prE	N: EN 530:2010	Other:
Article:	Annex:	Clause:		
Key words:				
Abrasion, pressure				
Question:				
The pressure to be	used is not specified in all product standards.			
Which pressure sho	uld be used: 9 kPa or 12 kPa?			
Solution:				
9 kPa				



PPE-R/05.05-223 Version 02

RECOMMENDATION F	OR USE	
Number of pages: 1	Approval stage:	Approved on:
Origin: Vertical Group 5	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022
Question related to ☐ PPE Regulation ☐ PPE Guidelines ☐ EN/	prEN:	Other:
Article: Annex: Clause:		
Key words:		
Marking, partial protection		
Question:		
How can the marking be made when only a part of garment complies with a s	tandard?	
Example: The whole garment passes EN ISO 15025 A1level 3 and the requir be categorized in class D3 for aluminium splashes. Can D3 be put on the main splashes.		front of the garment can
Solution:		
It is possible to mark with the number of the standard, if in the marking and in is protected.	formation of use it is clearly explained	d which part of the body



PPE-R/05.05-226 Version 02

	RECOMMEND	DATION FOR USE	
Number of pages: 1		Approval stage:	Approved on:
Origin: Vertical Grou	p 5	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	16.06.2021 01.10.2021 18.11.2022
Question related to		☑ EN/prEN: EN 14605	Other:
Article:	Annex:	Clause:	
Key words:			
Attached items			
Question:			
	ears to be no requirement to test gloves, boot he main body of the suit.	s, etc attached to chemical suits for resistar	ice to permeation against the
Solution:			
We propose to test thas been tested aga	he materials of gloves to either EN 374-3 or Einst.	N 369 using the same battery of chemicals	that the main part of the suit
For the boots there i	s no standard. The N.B. shall conduct all nece	ssary tests to establish the conformity for the	e same battery of chemicals.
The user information	should include test data for the individual con	nponents of the clothing assembly.	



PPE-R/05.05-25
Version 02

	RECOMMENDATION FOR SOL				
Number of pages: 1			Approval stage:	Approved on:	
Origin: Vertical Grou	p 5		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022	
Question related to	☑ PPE Regulation ☐ PPE Guidelines	⊠ EN/prE (4.2)	EN: EN ISO 20471:2013	☐ Other:	
Article:	Annex:	Clause:			
Key words:					
Design; retroreflectiv	e; arrangement				
Question:					
	ands be arranged in another way than descri ve bands positioned on the legs when there i				
Can these items still reasons for it?	be considered as complying with EN IS 2047	71 (cfr. marking	g), if accompanied by a reference	e to the deviation and the	
Solution:					
	rom a harmonized standard to suit a particula proposed modification is justified, i.e. the PPE				
No. Compliance with	an EN standard means to comply with the w	/hole standard.			



PPE-R/05.05-282 Version 02

RECOMMENDATION FOR USE			
Number of pages: 1		Approval stage:	Approved on:
Origin: Vertical Group 5		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022
Question related to	PPE Regulation PPE Guidelines	⊠ EN/prEN: EN 470-1 (6.2)	☐ Other:
Article:	Annex:	Clause:	
Key words:			
Molten metal drops; high	n visibility		
Question:			
garments used for weldi		tal) as well as to EN ISO 15025 (burning beh	aviour) for high visibility
Solution:			
Yes, they shall fulfil the r	requirements for welder's protective clothin	ng.	



PPE-R/05.05-309 Version 02

val stage: Approved on:
ertical Group 15.06.2021 orizontal Committee 01.10.2021 J PPE Expert Group 18.11.2022
☐ Other:
the safety requirements of PPE Regulation



PPE-R/05.05-316 Version 02

Number of pages: 1			Approval stage:	Approved on:
Origin: Vertical Grou	p 5		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022
Question related to		⊠ EN/prE	N: EN 366 / EN ISO 6942	Other:
Article:	Annex:	Clause:		
Key words:				
Blackening of caloring	neter			
Question:				
In EN 366 / EN ISO	6942 it is said that the calorimeter shall be black	kened before	the tests.	
Is this absolutely nee	cessary?			
If the answer is YES	, what type of paint?			
Solution:				
YES, it is necessary				
In EN 367:1992 the	following information is given:			
Black paint: Nextel \	/elvet Coating: Black 2010			
3M UK Ltd. P.O. Box 38 Yeoman House 63, Croydon Road, F London SE 20 7TR United Kingdom Paint remover: Acete				



PPE-R/05.05-348 PPE-R/05.21-010 Version 02

RECOMMENDATION FOR USE

Number of pages: 1		Approval stage:	Approved on:	
Origin: Vertical Grou	ıp 5		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022
Question related to		⊠ EN/prE (4.2.2)	N: EN ISO 20471:2013	☐ Other:
Article:	Annex:	Clause:		
Key words:				
Bands encircling the	etorso			
Question:				
EN ISO 20471:2013	, clause 4.2.2 states that garments covering the	torso and a	rms shall have retroreflective b	ands "encircling the torso".
According to the dic	tionary a torso is the trunk of the human body, v	vithout head	or limbs.	
There is no problem to verify this requirement if the bands are put low enough (under the armpit) to encircle the torso fully. But what if the upper band is placed almost at shoulder height and hence can not encircle the torso fully?				
Solution:				

The band shall be put low enough to encircle the torso.

Other configurations may be used if justified by specific work situations and on the condition that the reflective trimming remains sufficiently visible in all work postures.





PPE-R/05.17-002 Version 02

Number of pages: 1	Approval stage:	Approved on:
Origin: Vertical Group 5	Horizontal Committee	15.06.2021 01.10.2021 18.11.2022
Question related to ☐ PPE Regulation ☐ PPE Guidelines ☐ EN/prE	N:	Other:
Article: Annex: Clause:		
Key words: Instructions for use		
Question:		
EN ISO 13688:2013 requires that, in the instructions for use, the article number a	ppears in the same way as it is mark	ked on the label.
The clause on labelling in the same EN ISO 13688 requires to indicate the article	designation: product type, commerc	ial name or code.
Is it acceptable to have a general sentence in the instructions for use, e.g. "These according to IEN ISO 20471:2013"? Or should each individual item be mentioned		
Solution:		
It is acceptable to use more general wording, on condition that:		
- it is possible to link the garment clearly to the correct "instructions for use" notice applies to a group of items;	otice, e.g. by using article numbers, e	even if the same
- the notice gives an adequate explanation of all different classes and perform allows to identify the data, which apply to that particular item.	nance levels in the standard (where t	his is the case) and



PPE-R/05.17-008 Version 02

RECOMMENDATION FOR USE				
Number of pages: 1			Approval stage:	Approved on:
Origin: Vertical Group 5			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022
Question related to 🖂 P	PPE Regulation PPE Guidelines	☐ EN/prE	EN:	☐ Other:
Article:	Annex:	Clause:		
Key words:				
Protective clothing, categorial	orisation			
Question:				
Nowadays in the market t	here is non-fluorescent protective clothing	with reflective	ve bands (gardening, maintenar	nce, etc.).
What is the categorisation	of this clothing (I or II)?			
If they are in category II, v	which harmonised standard can we use?			
Solution:				
These are category II products. There is no appropriate harmonised standard, but elements from EN ISO 20471 can be used. The information leaflet shall be clear on the use and the limitations of use.				
Note: EN 13356 (accesso	ories) should not be used, since clothing is	explicitly exc	cluded from the scope	



PPE-R/05.17-017 Version 02

7	DECOMMENDATION F	OD HOE	
	RECOMMENDATION F		
Nun	nber of pages: 1	Approval stage:	Approved on:
Orig	gin: Vertical Group 5	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022
Que	estion related to PPE Regulation PPE Guidelines EN/p	rEN:	☐ Other:
Artic	cle: Annex: Clause:		
Key	words:		
Vari	ous performance levels in one garment		
How	estion: v can a garment be marked with different levels of performance in front and ninised material in the back)?	back (e.g. aluminised material in	the front, and non-
Solu	ution:		
As a	a general principle the "worst case" approach shall be used, i.e. the lowest	level shall be announced in the m	arking.
	s shall also be done in the information leaflet, but the attention may be drawnent, in particular if they are exposed to higher degrees of risk.	n to the higher protection levels o	offered by some parts of the
	higher performance level may however be announced in the marking and sible and if the product standard does not contain specific and conflicting p		take on behalf of the user is
Exa	mples:		
1.	IEC 61331-3 on X-ray protective aprons specifies that the protection leve be indicated in the marking	s in front and back may be differe	nt, but that both levels shall
2.	EN ISO 11612 does not contain such provisions and e.g. in the case of swith an aluminized front and an open back for comfort, the protection leve the garment should then be accompanied by the "i" pictogram to draw more	I of the front should be announced	d. The "flame" pictogram on



PPE-R/05.17-018 Version 02

Number of pages: 1	Approval stage: Approved on:		
Origin: Vertical Group 5	 ✓ Vertical Group ✓ Horizontal Committee ✓ EU PPE Expert Group 15.06.2021 01.10.2021 18.11.2022 		
Question related to ⊠ PPE Regulation ☐ PPE Guidelines ☐ EN/prE (4.2.1, 4.2	EN: EN ISO 20471:2013		
Article: Annex: Clause:			
Key words: Retroreflective; shoulder bands			
Question: Is it possible to certify equipment with the following design?			
Solution: The garment represented in the drawing does not meet the requirements of EN Regulation if the relevant essential requirements are met. EN ISO 20471 howev information leaflet.			



PPE-R/05.18-005 Version 02

Number of pages: 1			App	roval stage:	Approved on:
Origin: Vertical Grou	ip 5		\boxtimes	Vertical Group Horizontal Committee EU PPE Expert Group	16.06.2021 01.10.2021 18.11.2022
Question related to		⊠ EN/prEN	N: EN	N 659:2008 (3.6)	☐ Other:
Article:	Annex:	Clause:			
Key words:					
Firefighter gloves; p	uncture				
Question:					
In EN 659:2008, the	puncture requirement is level 3 instead of level 2	2 in the old ve	ersic	on EN 659:1995.	
Most French fire-figh	nters gloves have level 2 and give entire satisfact	ion because	dex	terity is more important for	r fire-fighters than puncture.
Is it possible to certify according to the Regulation a fire-fighter glove with level 2 for puncture?					
Solution:					
	st the essential requirements of the Regulation is 2 for puncture is sufficient and a lower level of me.				
The manufacturer sl	nall indicate and explain this adequately in the "ir	structions fo	r use	9".	



PPE-R/05.18-006

Version 03

Number of pages: 1	Approval stage :	Approved on :		
Origin : Vertical Group 5	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	18/03/2022 30/04/2022 31/08/2023		
Question related to PPE Regulation PPE Guidelines	☑ EN/prEN:	☐ Other:		
Article: Annex: C	lause:			
Key words: Type 2; Trousers				
Question:				
This standard is only intended to evaluate the knee protectors as separa protectors should fit.	ate items, but what about the ready- made	de garment in which these		
When a garment is put on the market with knee pockets, but without knee correct protectors?	ee protectors, can it be the user's respon	nsibility to choose the		
What are the items to be checked on the garment without the protectors	s?			
Solution:				
If the trousers are not PPE (as in the case of workwear without specific shall be considered. $% \label{eq:considered}$	protective function), then the combination	on trousers-knee protectors		
If knee protectors are added as separate (optional) protective devices, worn in "knee pockets", the manufacturer shall inform the user about this in the information leaflet, e.g., by referring to the use of approved protectors (e.g., according to EN 14404) and by giving the necessary indications on the function and the positioning of the protectors.				
If sold separately, the knee protectors shall be marked on the product it	self, as required by the Regulation.			



PPE-R/05.19-002 r3 Version 02

Number of pages: 1	Approval stage:	Approved on:
Origin: Vertical Group 5	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022
Question related to ☐ PPE Regulation ☐ PPE Guidelines ☐ EN/prE	:N: EN 13356:2001 (5.1)	Other:
Article: Annex: Clause:		
Key words: Retroreflective; angle		
Question:		
The standard specifies that after exposure the test specimens have to be measured observation angle α = 0,2°. In clauses 4.2.2 to 7 it is mentioned that all photomer is very confusing. Shall all the angles be measured after exposure or only one? Taking EN ISO 20471 for comparison, after exposureonly one angle is measured that the formula of the comparison of the comp	etric requirements of Table 1 and 2 d. Furthermore the requirements of	have to bemet. This
exposure are lower than for a new product (from 330/250 to 100 cd/lux/m²), which		
Although the requirements after exposure should notbe decreased too much, we	see no real need to measure at m	ore than one angle.
Solution:		
For Type 1, after exposure, measurements shall be repeated at two angles, 0.2-angles.	degree observation angle and +5 a	nd -5 degree entrance
For Type 2 & 3, after exposure, a measurement shall be repeated at one angle, angle.	0.2-degree observation angle and -	+5 degree entrance



PPE-R/05.22-008 Version 02

RECOMMENDATION FOR USE				
Number of pages: 1		Approval stage:	Approved on:	
Origin: Vertical Group 5		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022	
Question related to 🛛 F	PPE Regulation PPE Guidelines	⊠ EN/prEN: EN ISO 20471:2013 (5.3)	Other:	
Article:	Annex:	Clause:		
Key words:				
Colour fastness; non-fluor	rescent			
Question:				
For which kind of non-fluc	rescent materials are the colour fastness /	staining requirements in clause 5.3 applica	ble?	
Solution:				
The colour fastness / staining requirements in clause 5.3 are applicable for the non-fluorescent material layers; e.g. additional (contrast) material layers on the outside of a garment or lining(s) inside the garment. Also non-fluorescent material layers are mentioned in the revised title of clause 5.3 in EN ISO 20471.				
The colourfastness / staining requirements in clause 5.3 are therefore not applicable for the non-fluorescent materials which aren't (garment) layers: e.g. embroideries, textile material of zipper, elastic strips, small marking tags, sewing threads etc.				
Small areas of non-fluorescent materials (e.g. < 2% of fluorescent material area) as labels, (knitted) stretch bands for jackets or trousers, fashion stripes (e.g. 3 mm chest braid), pocket flaps etc need special consideration (e.g. large area? dark colour? industrial washing? etc) and may require testing.				
	Washing of the whole garment can be used as a screening test to assess the influence of these small area materials. For other materials the colour fastness shall be assessed.			
Clarification in the next re	vision of EN ISO 20471 is requested.			



PPE-R/2	22.30
Version	00

Number of pages: 1	Approval stage :	Approved on :
Origin : Centexbel	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	23/05/2022 07/12/2023 26/05/2024
Question related to ⊠ PPE Regulation ☐ PPE Guidelines ⊠ E	EN/prEN: EN ISO 15384	Other:
Article: Annex: Clau	se:	
Key words:		
Withdrawn EN standard under PPE Directive – new EN ISO standard not h	harmonized yet under PPE Regulation	on
Question:		
Can the EN ISO 15384:2020/A1:2021 be considered as the state-of-the-art	in the field of Protective clothing for fi	refighters?
Solution:		
V		
Yes		



PPE-R/05.23-005 Version 02

Number of pages: 1	Approval stage: Approved on:
Origin: Vertical Group 5	 ✓ Vertical Group ✓ Horizontal Committee ✓ EU PPE Expert Group 16.06.2021 01.10.2021 18.11.2022
Question related to ⊠ PPE Regulation ☐ PPE Guidelines ⊠ EN	/prEN: EN 13034 (4.1)
Article: Annex: Clause): :
Key words:	
Repellency, penetration	
Question:	
Chemical protective clothing materials for type 6 garment shall be tested and penetration by liquids.	d classified for their liquid repellency and resistance to
EN 14325 states that the materials shall be tested against all 4 chemicals list The user information should contain information on the performance levels for	
Many materials for type 6 garments are designed to meet the repellency and hydroxide, not for solvents.	penetration requirements for sulphuric acid and sodium
This means that manufacturers are requested to have their materials tested at the tests will bring no additional information.	against substances, for which they know they will fail. Hence
Solution:	
The garment shall not be tested against substances, from which it does not p	protect.
However, it shall be clearly indicated in the information for use that no protect	ction is provided against these substances.



PPE-R/05.23-013 Version 02

Number of pages: 1	Approval stage: Approved on:			
Origin: Vertical Group 5	 ✓ Vertical Group ✓ Horizontal Committee ✓ EU PPE Expert Group 15.06.2021 01.10.2021 18.11.2022 			
Question related to PPE Regulation PPE Guidelines SEN/p (4.2)	rEN: EN ISO 20471:2013			
Article: Annex: Clause:				
Key words: Retroreflective bands				
Question:				
Is it possible to place retro-reflective tapes in these directions – tape skew parallel in one direction (see pictures in EN ISO 20471) or is possible contrary skew?				
Solution: EN ISO 20471 allows this.				



PPE-R/23.30
Version 01

Number of pages: 1	Approval stage :	Approved on :		
Origin: VG5	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	29/08/2023 07/12/2023 26/05/2024		
Question related to ☐ PPE Regulation ☐ PPE Guidelines ☐ EN/ş	orEN: EN 469:2020	☐ Other:		
Article: Annex: Clause:				
Key words:				
Dimensional change, limits, nonwoven, quilted material				
Question:				
For EN 469:2020 paragraph 6.2.5.: Dimensional change, there is $\pm 3\%$ limit for	r woven and ±5% limit for knitted	and nonwovens.		
What would you do if you have a quilted material: One part is woven, and one part is non-woven, but they are combined and sold as one multi-layer material. What is the requirement for dimensional change for this multi-layer material?				
Solution:				
The client needs to deliver materials separate if that is possible. If not, stitch the quilted materials at all four sides and apply markings (this is performed by the client or the lab). The requirement for this multi-layer material is set at ±5%.				



PPE-R/05.24-006 Version 02

RECOMMENDATION FOR USE				
Number of pages: 1	Approval stage:	Approved on:		
Origin: Vertical Group 5	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022		
Question related to PPE Regulation PPE Guidelines (4.2)	EN/prEN: EN ISO 20471:2013	☐ Other:		
Article: Annex: Clau	ise:			
Key words:				
Retroreflective; encircling bands				
Question:				
EN ISO 20471 requires retroreflective bands with a minimum width of 50 mm to be applied in continuous bands. Does a deliberate offset in a band, such as shown in the example, meet the requirements?				
Solution:				
CEN/TC 162/WG 7 response:				
The band shall be continuous without any offset.				



PPE-R/05.24-012b

Version 03

RECOMMENDATION FOR USE			
Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group 5		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	18/03/2022 30/04/2022 31/08/2023
Question related to PPE Regulation F	PPE Guidelines 🖂 EN/prE	N: EN 1149-5:	☐ Other:
Article: Annex:	Clause: 4.2	2.2	
Key words: Design; vests			
Question:			
Can the apron or vest be certified as electrosta	atic dissipative protective clothing	acc. to EN 1149-5 including us	se in explosive atmosphere?
Solution:			
Aprons or vests can be certified as electrostatic dissipative clothing according to the PPE Regulation only in conjunction with the garments worn beneath them.			
They shall be subjected to a garment test as foreseen in EN 1149-4 (under development) as an ensemble. The Certificate must be limited to the item or items that the garment has been tested with.			



PPE-R/05.24-026 Version 02

Number of pages: 1		Approval stage:	Approved on:		
Origin: Vertical Grou	p 5	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022		
Question related to	☑ PPE Regulation ☐ PPE Guidelines	☑ EN/prEN: EN ISO 20471:2013 (4.1)	Other:		
Article:	Annex:	Clause:			
Key words:					
Measurement of background material; combined performance materials					
Question:					
It is possible to add the area of background material and combined material to achieve the total area?					
Solution:					
If using combined performance material according to EN ISO 20471 Table 5, the full area of 0.20 m² must be used.					



PPE-R/05.26-001 Version 02

RECOMMENDATION FOR USE

Number of pages: 1		App	roval stage:	Approved on:	
Origin: Vertical Grou	ıp 5		\boxtimes	Vertical Group Horizontal Committee EU PPE Expert Group	16.06.2021 01.10.2021 18.11.2022
Question related to		⊠ EN/prE	N: EN	N 13034	☐ Other:
Article:	Annex:	Clause:			
Key words:					
Breathable spray-tig	ht				
Question:					
The BSIF PSMA committee have identified a need for, and advantages of, development of a standard suitable for "breathable" spray-tight protective garments; they have highlighted a number of issues with the current permeation test called up for Type 4 garments (through EN 14605 which references EN 14325 Clause 4.11). Work to address the issues is ongoing at CEN level. In the meantime, there are applications which require a higher level of liquid spray protection than that offered by a Type 6 garment; but do not necessarily need the chemical permeation resistance specified in EN 14605 for a Type 4 garment (Examples of which include applications requiring decontamination by a shower following hazardous particulate contamination). Whilst the standards are being reviewed to address this issue, how should Notified Bodies CE certify these kinds of products?					
Solution:					

For Type 6 products, including those which are breathable*, which are to be marketed as "spray-tight":

- Product shall meet all requirements of EN 13034;
- Product shall additionally be tested in accordance with ISO 17491-4 (Method B, High Level Spray Test);
- Product shall pass the spray test as per the requirement of EN 14605 4.3.4.2;
- The spray-tight shield may be used on product packaging and user information;
- The user instructions and CE certificate shall clearly indicate that the product meets the spray-test requirements of EN 14605 only and does not claim the Type 4 standard.
- The User Instructions shall relate the recommended decontamination process to the spray test performance.
- * The generally accepted definition of "breathable" materials is those that are moisture and/or air permeable. PD CEN TR/ 15419:2006 define air-permeable materials as "materials with pores or apertures that allow the transmission of gases". In order to demonstrate that a material is breathable a manufacturer shall test to EN 31092 (test method for water vapour resistance) as specified in EN13688:2013 4.4.2 and shall achieve Class 2 or 3 (according to EN 343).

NOTE: If and when the standards are revised to provide for this particular kind of product; this guidance sheet should be reviewed.



PPE-R/05.26-013 Version 02

Number of pages: 1	Approval stage: Approved on:			
Origin: Vertical Group 5	 ✓ Vertical Group ✓ Horizontal Committee ✓ EU PPE Expert Group 16.06.2021 01.10.2021 18.11.2022 			
Question related to ☐ PPE Regulation ☐ PPE Guidelines ☐ EN/pr	EN: General Other:			
Article: Annex: Clause:				
Key words:				
Antineoplastic agents				
Question:				
Is it possible to use the phrase "against chemicals risks and antineoplastic ages 374-1: 2016, when the glove is tested with permeation test, EN 374-3, using an				
Could it be possible when the glove is tested against at least four of antineoplastic agents chosen from this list?				
Cyclophosfamide / Carmustine / Adryamicin (Doxorubicin or Adriblastine) / Fluorouracil / Methotrexate / Vincristine / cis Platinum / Daunorubicin.				
This list represents the most used chemicals in hospital treatments.				
Solution:				
Yes. The phrase can be used if protection against an anti-neoplastic agent is d	emonstrated.			
The list of agents tested shall be included on the Certificate and the User Inform	nation.			



PPE-R/05.28-007
Version 02

Number of pages: 1	<u>.</u>		Арр	roval stage:	Approved on:	
Origin: Vertical Group	o 5		\boxtimes	Vertical Group Horizontal Committee EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022	
Question related to	☑ PPE Regulation ☐ PPE Guidelines	⊠ EN/prE 61482-2:20		N 61482-2 - IEC 4.2)	☐ Other:	
Article:	Annex:	Clause:				
Key words: Retro-reflective						
Question:						
A garment is certified according to EN ISO 20471:2013/A1:2016, EN ISO 14116:2015 and EN 61482-2.						
The manufacturer wa	ants to replace the retro-reflective tapes by anot	her brand (s	ame	performance).		
The original retro-reflective products have not been tested by themselves according to EN 61482-1-2/ EN 61482-1-1, and have only been tested when applied to the garment.						
Is an additional test of the garment with the new retro-reflective tapes mandatory?						
Or is performance of the retro-reflective material in passing ISO 17493:2000 (as per RfU 25-010 "Design & melting parts") and flame spread Index 3 according to EN ISO 14116:2008, sufficient?						
Solution:						
	rerial that passes ISO 17493 (at 180°C for 5 min Fording to IEC 61482-2 without retesting.	utes) and m	eets	Index 3 of EN ISO 14116 o	can be used on an arc-flash	



PPE-R/05.28-010 Version 02

Number of pages: 1	Approval stage:	Approved on:				
Origin: Vertical Group 5	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022				
Question related to PPE Regulation PPE Guidelines	☑ EN/prEN: EN ISO 20471:2013	☐ Other:				
Article: Annex:	(5.6.2) Clause:					
Key words:						
Coated fabrics and laminates; water vapour resistance						
Question:						
Clause 5.6.2 states:						
"For garments which offer protection against rain (coated woven and knitted fabrics and laminates), test and classify in accordance with EN 343."						
Should garments manufactured from coated fabrics and laminates w	hich do not claim compliance with EN 343	be:				
a) Tested to EN 343 in respect of water vapour resistance only;						
b) Tested for full compliance to EN 343;						
c) Tested to EN ISO 20471 clause 5.6.3.						
Solution:						
c) Tested to EN ISO 20471 clause 5.6.3.						



PPE-R/05.29-007
Version 02

* * *	- 1-10 V - 0- 1 V - 0	
	DATION FOR USE	
Number of pages: 1	Approval stage:	Approved on:
Origin: Vertical Group 5	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022
Question related to □ PPE Regulation □ PPE Guidelines	⊠ EN/prEN: EN ISO 20471:2013 (5.6.3)	Other:
Article: Annex:	Clause:	
Key words:		
Physiological performance; Contrast material		
Question:		
According to clause 5.6 all materials, incl. contrast material, shall area is covered by such contrast material, e.g. for side inserts or to part of torso? Do they also have to fulfil the Ret < 5, even if the size	the lowest seam part (see picture) and therefore	re doesn't cover the major
Solution:		
The area of those small inserts shall not be relevant (hem, edges and the size of those inserts altogether do not exceed 10% of bac		e vapour relevant places



PPE-R/05.29-011 Version 02

RECOMMENDATION FOR USE							
Nι	ımber of pages: 1				Approval stage:	Approved on:	
Or	igin: Vertical Grou	up 5			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022	
Qı	uestion related to	⊠I	PPE Regulation PPE Guidel	ines	EN: EN ISO 11612: 2015	Other:	
Ar	ticle:		Annex:	Clause:			
Ke	ey words:						
De	efinitions; material	l; flam	e spread				
Qι	uestion:						
			layer garments are tested to 6.3 the outermost surface and the ir		the outer surface only. Multi-lay	er garments are tested to	
Th	e EN ISO EN ISC	116	12:2015 has new definitions:				
	14 material asser	-					
			als of a multi-layer garment prese	ented exactly as the fir	nished garment construction		
	15 material comb			togother during the go	rment manufacturing stage		
	ateriai produced ir 16 multilayer mat		series of separate layers, fixed	logether during the ga	irment manufacturing stage		
ma	-		erent layers intimately combined	prior to the garment r	manufacturing stage, e.g. by we	aving, quilting, coating or	
1.	Is lamination glu	uing ?					
2.	Is a "material co	mbin	ation" considered to be a single l	ayer or a multilayer m	aterial?		
3.	ls a "multilayer n	mater	ial" considered to be a single lay	er or a material assen	nbly?		
4.			sidered to be single layer and the at (this can be the only criterion fo		e reasoning? What is the differe	nce for the safety of the	
Α'	A "single layer" is a single material that has not been intimately combined with another layer.						
Sc	lution:						
1.	Replace 'gluing'	with	'laminating'				
2.	A "material com	binati	on" is considered to be a materia	al assembly.			
3.	A "multilayer ma	aterial	" is considered to be a material a	assembly.			
4.			e between a single layer or mult tant as the inner side of a single			innermost layer of a	



PPE-R/05.31-00°
Version 02

***		RECOMMENDATION FOR USE					
Nur	nber of pages: 1			Approval stage:	Approved on:		
Origin: Vertical Group 5			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	16.06.2021 01.10.2021 18.11.2022			
Que	estion related to 🛛 I	PPE Regulation PPE Guidelines	⊠ EN/prE 2009 (4.1)	N: EN 13034:2005/A1:	Other:		
Arti	cle:	Annex:	Clause:				
Key	words:						
Wa	Washing, reimpregnation, care label						
Que	estion:						
1)		requires care labelling to be present for however, this is required on the information			naximum number cleaning		
		turer have to place on the garment care cycles permitted prior to reimpregnation		num number of cleaning cycles	permitted, or the maximum		
2)		1 states that Manufacturer's instructions on of treatments shall be observed.	s with regard to r	number of cleaning cycles, clea	ning procedures and		
	In the case of garments that may have treatments reapplied, should they be tested after the maximum number of cleaning cycles (prior to reapplication of treatments) and then again after retreatment (as is described in withdrawn EN 469:2014).						
Sol	ution:						
5.	5. No. However, this information must be included in the instructions for use.						
6.	the maximum numb	have treatments reapplied should be te er of cleaning cycles, prior to reapplicat ycles, as required by EN 14325:2004.					



PPE-R/05.32-011 Version 02

Number of pages: 1	Approval stage:	Approved on:
Origin: Vertical Group 5	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022
Question related to PPE Regulation PPE Guidelines EN/p 2013 (7.		☐ Other:
Article: Annex: Clause:		
Key words:		
Marking		
Question:		
1) Is it allowed to use EN ISO 13688 or EN 420 alone and to put in the mark	ing only EN ISO 13688 or EN 420'	?
2) Is it required to put "EN ISO 13688" or "EN 420" in the labelling in addition	to the specific product standard nu	ımber?
Solution:		
1. No; marking with the number of the general standard alone is not allowed; 13688 Clause 7.2(h) and EN 420 Clause 7.2.1.	see Introduction, Clause 1 (Scope) and marking – EN ISO
2. No, because Clauses 7.2 only require the number of the specific product s	tandard in the marking.	
2. No, because Clauses 7.2 only require the number of the specific product s	tandard in the marking.	



for EN ISO 11611).

CO-ORDINATION OF NOTIFIED BODIES PPE Regulation 2016/425

PPE-R/05.33-004 Version 02

×	RECOMMENDA	ATION FOR USE					
Number of pages: 1		Approval stage:	Approved on:				
Origin: Vertical Grou	ир 5	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022				
Question related to		☑ EN/prEN: EN ISO 11611: 2015	Other:				
Article:	Annex:	Clause:					
Key words:							
Aprons; plastic buck	prons; plastic buckles						
Question:							
11612:2015. The bu	Plastic buckles are used as closure and regulation system in aprons to be certified in accordance with EN ISO 11611:2015 and/or EN ISO 11612:2015. The buckles are on the back of the user.						
Shall this type of clo	osure/regulation system:						
1) be covered by	a protective cover flap? (as required by § 4.6 of l	EN ISO 11611:2015 and 4.5 of EN ISO 116	512:2015)				
2) undergo the tes	t of limited flame spread? (as required by § 6.7.2	2.3 of EN ISO 11611:2015 and 6.3.2.3 of EN	NISO 11612:2015)				
3) undergo the tes	t of heat resistance at 180 °C? (as required by §	6.2.1 of EN ISO 11612:2015)					
Solution:							
	closure/regulation system does not need to be co SO 11611 and EN ISO 11612.	overed by a protective flap. This is not a clo	sure in the meaning of the				
2. Yes, it must be	tested for limited flame spread, for both standard	ds.					

Status: September 2024

3. Yes, it must undergo the heat resistance test at 180 °C for EN ISO 11612, but not for EN ISO 11611 (as heat resistance is not required



PPE-R/05.34-002

Version 00

	RECOMMENDATION FOR USE						
Number of pages: 1			Approval stage :	Approved on :			
Origin : Vertical Group 5			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	22/05/2019 30/04/2022 31/08/2023			
Question related to PPE	Regulation PPE Guidelines	⊠ EN/prE	N: EN 14325 : 2018	☐ Other:			
Article:	Annex:	Clause: 4.4	4.2.2: Annex E				
Key words: Pressure pot; ab	rasion						
Question:							
EN 14325:2018 introduces a	new pressure pot for assessing abra	rasion resistance	e of chemical protective clothing	g material.			
	Annex E.1 contains the dimensions for the round test pot apparatus (diameter, height etc.). Annex E.2.2 contains the total volume of the pressure pot and associated device and tubing, however this volume is not possible with the given dimensions.						
When testing abrasion resist	When testing abrasion resistance according to EN 14325:2018, what dimensions should be used for the round pressure pot?						
Solution:							
The expected volume in Ann	nex E.2.2 is incorrect. The dimensions	s in Annex E.1	should be used to construct the	round test pot.			
The total volume contained i cm3.	The total volume contained in the pressure pot cell (about 475 cm3), pressure measuring device and piping, etc. shall be 570 (+0 /- 50) cm3.						



PPE-R/05.34-006 Version 02

^ * ^	RECOMMENDA	ATION FOR USE				
Number of pages: 2		Approval stage:	Approved on:			
Origin: Vertical Group 5		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022			
Question related to 🛛 P	PE Regulation	☑ EN/prEN: EN ISO 20471:2013 +A1:2016 / EN 14058:2017 / EN 342: 2017	☐ Other:			
Article:	Annex:	Clause:				
Key words:						
Water vapour resistance,	comfort, combination of standards					
Question:						
For example: Softshell xyz						
• Ret: 30.94 m².Pa/W						
• Rct: 0.0659 m².K/W						
• Imt: 0.12779573						
Requirements for EN 1405	58:					
- Minimum Rct: 0.06 m						
- Maximum Ret: 55 m²	.Pa/W					
- Minimum Imt (calcula	ted): 0.065					
Requirements of EN ISO 2	20471:					
- Maximum Ret: 5 m².F						
Otherwise:						
- Minimum Imt: 0.15						
- When combined with	EN 343, the rules of the latter apply.					
However, a softshell cannot	ot have taped seams, so combining with E	EN 343 is not possible.				
	n this case, a standard which lists requirements for high visibility, has a more stringent requirement for lmt than a standard that addresses thermophysiological comfort.					
Can the Imt requirement of	f EN ISO 20471 be overruled by the requi	irements of comfort standard requirements?				
Solution:						
No. These items can be co	ertified to the Regulation.					



PPE-R/05.34-007 Version 02

* * *	RECOMMEND	ATION FOR I	ISF				
Number of pages: 2	RECOMMEND		pproval stage:	Approved on:			
Origin: Vertical Group 5			Vertical Group Horizontal Committee EU PPE Expert Group	16.06.2021 01.10.2021 18.11.2022			
Question related to	PPE Regulation	⊠ EN/prEN: E A1:2009	EN 13034:2005/	Other:			
Article:	Annex:	Clause:					
Key words: Pre-treatment, liquid repe	Key words: Pre-treatment, liquid repellency and penetration						
Question: Can we align the part pre PPE-R/05.21-022 (comp	e-treatment from EN 13034 prior to testing are with EN 469)?	of liquid repellend	cy and penetration with the e	existing agreement RfU			
EN 14325:2018 says:							
"4.2 Pre-treatment							
4.2.1 Pre-treatment by cl	eaning and disinfection						
undergo pretreatment by	Before each test, all chemical protective clothing material samples, with the exception of limited-use chemical protective clothing, shall undergo pretreatment by cleaning and disinfection as applicable. If the manufacturer's instructions indicate that cleaning or disinfection is not allowed, i.e. limited use garments, then testing shall be carried out on new material.						
Where applicable according to manufacturer's instruction, the cleaning and disinfection shall be in line with the manufacturer's instructions, on the basis of standardized procedures. If the number of cleaning and disinfection cycles is not specified, the tests shall be carried out after 5 cycles of pretreatment, each consisting of one wash cycle, one dry cycle and one disinfection cycle carried out in the sequence as indicated by the manufacturer's instructions. This shall be reflected in the information supplied by the manufacturer. If the garment can be washed or alternatively dry-cleaned it shall only be washed, dried and disinfected. If only dry-cleaning is allowed, the garment shall only be dry-cleaned and disinfected in accordance with the manufacturer's instructions."							

Solution:

Yes, proposal for EN 13034: 4.12 (liquid repellency) and 4.13 (liquid penetration) and 5.2 (light spray test) (based on prEN 469:2019): testing after worst case:

Examples:

Recommendation UI	Pre-treatment worst case
Reimpregnation after third washing cycle	Two washing cycles no impregnation
Reimpregnation after 10th washing cycle	Testing after 9 washing cycles no impregnation
Reimpregnation after 25th washing cycle	Testing after 24 washing cycles no impregnation

Compare with the new prEN 469:2019 proposal:

"5.4 Deterioration of repellency by cleaning

Where the finishing, applied to improve or maintain the repellency for liquids resistance performance of the garment, can be deteriorated by the cleaning procedures indicated by the manufacturer, the manufacturer shall indicate the maximum number of cleaning cycles that can be carried out before the garment needs to be re-treated or re-impregnated to restore its performances.

Testing according to 6.2.2 shall be carried out before the cleaning cycle for which the manufacturer guarantees, "i.e. the chemical resistance performance". For example, if the instructions state "re-impregnation during each third cleaning cycle", tests shall be performed after the second cleaning cycle, i.e. before re-impregnation. If the instructions state "reimpregnation after each cleaning cycle", the tests shall be performed on new items."

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 8 "Lifejackets"

of the European Coordination of Notified Bodies in the field of Personal Protective Equipment (PPE)

Regulation (EU) 2016/425

Number	Version	Reference	Keywords	Approved by	Approved by	Endorsed by
of RfU				Vertical	Horizontal	PPE Working
PPE-R/				Group 8	Committee	Group
08.002	01	ISO 12402-	Snorkel Vest	21.04.2018	21.04.2018	29.11.2019
		5:2006 and ISO				
		12402-				
		5:2006+A1:2010				
<u>08.004</u>	01	ISO 12402-	Fabric & Sewing Thread	21.04.2018	21.04.2018	29.11.2019
		7:2007 and ISO				
		12402-				
00.005	0.4	7:2007+A1:2011		04.04.0040	04.04.0040	00.44.0040
<u>08.005</u>	01	ISO 12402-	Sprayhood clear material	21.04.2018	21.04.2018	29.11.2019
		8:2006 and ISO				
		12402- 8:2006+A1:2011				
08.006	01	ISO 12402-	VG8 Proposal for 50N	21.04.2018	21.04.2018	29.11.2019
00.000	01	6:2006 and ISO	Flotation Suits (EN ISO	21.04.2010	21.04.2016	29.11.2019
		12402-	12402-6)			
		6:2006+A1:2010	12.102.0)			
08.007	01	EN ISO 12402-7:	Hardware	21.04.2018	21.04.2018	29.11.2019
		2007 and ISO				
		12402-7:2007				
		+A1:2011				
08.009	01	EN ISO 12402-	Buoyancy requirements and	21.04.2018	21.04.2018	29.11.2019
		5:2006+A1:2010	testing procedures for 2			
		and ISO 12402-	piece 50N flotation suits			
00.040	0.4	6:2006+A1:2010		04.04.0040	04.04.0040	00.44.0040
<u>08.010</u>	01	EN ISO 12402-	Inherently buoyant material – Thickness of foam	21.04.2018	21.04.2018	29.11.2019
08.011	01	7:2007+A1:2011 EN ISO 12402-	In water performance -	21.04.2018	21.04.2018	29.11.2019
00.011	01	4:2006 and ISO	faceplane	21.04.2010	21.04.2016	29.11.2019
		12402-	lacepiane			
		4:2006+A1:2010				
08.013	01	EN ISO 12402-	Webbing and Thread	21.04.2018	21.04.2018	29.11.2019
		7:2007+A1:2011	requirements			
08.014	01	ISO 12402-	Colour and illumination	21.04.2018	21.04.2018	29.11.2019
		7:2007+A1:2011	issues			
<u>08.015</u>	01	ISO 12402-	Inflation Chamber Material	21.04.2018	21.04.2018	29.11.2019
		7:2007+A1:2011				
<u>08.016</u>	01	ISO 12402-	Buoyancy test method	21.04.2018	21.04.2018	29.11.2019
00.515		9:2006+A1:2011		04.04.5515		00.44.55.5
<u>08.018</u>	01	ISO 12402-	Constant wear devices	21.04.2018	21.04.2018	29.11.2019
00.040	0.4	6:2006+A1:2010	O to Live floor	04.04.0040	04.04.0046	00.44.0040
<u>08.019</u>	01	ISO 12402-	Oral inflation systems	21.04.2018	21.04.2018	29.11.2019
00 000	01	7:2007+A1:2011	IRM Oil, Foam testing	21.04.2018	21.04.2010	29.11.2019
08.022	01	EN ISO 12402- 7+A1:2011	inivi Oii, Foaiii testing	21.04.2018	21.04.2018	29.11.2019
08.023	01	EN 13138-1,-2,-	Colour requirements	21.04.2018	21.04.2018	29.11.2019
00.023	01	3:2008	Colour requirements	21.04.2010	21.04.2010	23.11.2013
08.026	01	ISO 12402-	Inflation tests	21.04.2018	21.04.2018	29.11.2019
00.020	"	9:2006+A1:2011		21.54.2010	21.07.2010	20.11.2010
08.027	01	ISO 15027-	Resistance to illumination	21.04.2018	21.04.2018	29.11.2019
55.52.		1:2012				
L	l			1	I	

00.000		1.00 4.505	I	04.04.0040		00.44.0040
08.028	01	ISO 15027- 1:2012	Thermal testing	21.04.2018	21.04.2018	29.11.2019
08.029	01	EN ISO 12402- 7:2007+A1:2011	Abrasion Resistance for Inflatable Chamber Material	21.04.2018	21.04.2018	29.11.2019
08.032	01	EN ISO 12402- 2:2006+A1:2010, EN ISO 12402- 3:2006+A1:2010	Face plane angle and Torso angle	21.04.2018	21.04.2018	29.11.2019
08.033	01	ISO 12402- 9:2006 +A1:2011	Order of testing: Temperature cycle test and rotating shock bin test	21.04.2018	21.04.2018	29.11.2019
08.034	02	ISO 12402- 7:2007+A1:2011	Unsupported Inflation Chamber Materials	21.04.2018	21.04.2018	29.11.2019
08.035	01	EN ISO 12402: 2006+A1:2010 Parts 2-6	Pouch type PFD's	21.04.2018	21.04.2018	29.11.2019
08.036	01	EN ISO 15027- 1:2012 & EN ISO 15027-2:2012	Preconditioning of immersion suit material samples	21.04.2018	21.04.2018	29.11.2019
08.038	00	EN ISO 12402-6: 2006+A1:2010	PFDs for fire fighting	13.12.2017	13.07.2018	05.11.2018
08.041	01	EN 14225-1:2017	Surface wetsuit testing requirements	13.12.2017	13.07.2018	05.11.2018
08.042	00	EN ISO 12402 Parts 2-5, Clause 5.5.10.2.3 EN ISO 12402-9: 2006+A1:2011, Clause 5.5.9.3f)	Force to inflate test for inflatable PFD's	13.12.2017	13.07.2018	05.11.2018
08.043	02	EN ISO 12402-5: 2006/A1:2010	PFD Hydration Pack	16.05.2018	13.07.2018	05.11.2018
08.044	01	EN 14225-2:2017	Information supplied with a diving drysuit	21.04.2018	21.04.2018	29.11.2019
08.048	01	EN 12402-2, 3, 4 & 5:2020	Visibility of inflation system indicators	28.05.2021	01.10.2021	18.11.2022
08.049	00	EN 12628:1999	EU type examination - diving combined buoyancy and rescue devices	28.05.2021	01.10.2021	18.11.2022
08.051	02	EN ISO 12402- 7:2020	Foam Flotation Material	29.09.2022	07.12.2023	26.05.2024
08.052	00	EN ISO 12402- 2:2020 to EN ISO 12402-5:2020 and ISO 12402- 9:2020	Ride-Up prevention system	29.09.2022	07.12.2023	26.05.2024
08.053	01	EN ISO 12402- 9:2020	Test subject selection criteria Multi-Sized Buoyancy Aids (level 50)	31.01.2022	30.04.2022	31.08.2023
08.054	01	EN ISO 12402- 2:2020 to EN ISO 12402-5:2020	Servicing information	29.09.2022	07.12.2023	26.05.2024
<u>08.055</u>	00	EN ISO 12402- 7:2020	Strength testing of fabric	03.12.2021	07.12.2023	26.05.2024
<u>08.056</u>	00	EN ISO 12402- 7:2020	Tensile testing of foam	03.12.2021	07.12.2023	26.05.2024
08.058	01	EN ISO 12402- 7:2020	EN ISO 12402-7; Window Material; Table 21	10.10.2023	07.12.2023	26.05.2024
08.059	00	EN ISO 12402- 7:2020	Strength/slippage time	31.08.2023	07.12.2023	26.05.2024
08.060	00	EN 13138-1:2021 Clause 8.2, EN	Human subject testing; Manikin testing	31.08.2023	07.12.2023	26.05.2024

		13138-3:2021 Clause 5.8				
<u>08.062</u>	00	EN ISO 12402-	Uninflated Buoyancy Test	31.08.2023	07.12.2023	26.05.2024
		9:2020				



PPE-R/08.002 Version 1

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 8			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	PPE Regulation		N: ISO 12402-5:2006 2402-5:2006+A1:2010	☐ Other:
Article:	Annex:	Clause:		
Key words: Snorkel Vest				
Question: There has been confusion a	bout the testing requirements of 'Snorkel	Vests'.		
	est is a Buoyant Device for use where hele with ISO 12402-5 for level 50 devices.	lp is close a	It hand and so these devices sh	ould be tested as a



PPE-R/08.004 Version 1

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 8			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation		:N: ISO 12402-7:2007 2402-7:2007+A1:2011	Other:
Article:	Annex:	Clause: 4.2	2 & 4.3	
Key words: Fabric & Sewing Thread				
Question: Is it necessary to test ea	ch colour in a range of the same fabric and s	sewing threa	ad?	
colour and then test a sa	f a fabric/thread manufacturer has a range o ample of the colours in between these two, th uld representative of the range being produce	ne number o		
This agreement however	r does not apply to Rescue Devices.			



PPE-R/08.005 Version 1

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	8		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018
Question related to	☐ PPE Regulation		N: ISO 12402-8:2006 2402-8:2006+A1:2011	☐ Other:
Article:	Annex:	Clause: 5.	5.1	
Key words:				
Sprayhood clear mate	rial			
Question:				
compliant with ISO 12- requirement in Table 2 excessive to what the	A1:2011, Clause 5.5 for Sprayhoods. There is 402-7. However, there is no requirement spec 21 for Window material but this is specifically for requirement for clear material on a sprayhood se packing difficulties).	ifically for cle or viewing ar	ear material in ISO 12402-7:200 n inflation mechanism. These re	77+À1:2011. There is a quirements are also
Solution:				
	aragraph 4, line 1 of clause 5.5.1 in ISO 1240 nood materials and the below compliance crite			n ISO 12402-7' is not
	omply with all requirements of ISO 12402-8 ar cording to ISO 12402-9, clause 5.6.	nd not affect	the device meeting all requirem	ents when tested for in
	f the PFD in accordance with ISO 12402-9:20 erial, should show no sign of damage such as			



PPE-R/08.0)06
Version 1	

RECOMMENDATION FOR USE				
Number of pages: 1		Approval stage :	Approved on :	
Origin : Vertical Group 8		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019	
Question related to	PPE Regulation	☑ EN/prEN: ISO 12402-6:2006 and ISO 12402-6:2006+A1:2010	Other:	
Article:	Annex:	Clause: 5.5, 5.5.1, 6.5		
Key words:				
VG8 Proposal for 50N Flo	otation Suits (EN ISO 12402-6)			
Question:				
	nce in design and performance of 50N flota ments for testing and marking of 50N Flotat	ation suits compared to standard 50N buoya tion suits?	ncy aids, what are the	
Solution:				
When testing of one and	two piece flotation suits these should be te	sted as special purpose devices under ISO	12402-6:2006+A1:2010:	
Additional requirements to	o be included in ISO 12402-6 as an additio	nal clause specifically for this type of suit ar	e as follows:	
		0 for PFD's level 50 shall be considered as 9+A1:2010 and the test methods specified		
In addition to the tests in	ISO 12402-5:2006+A1:2010, 5.6 the Encur	mbrance assessment test in clause 5.5.1 sh	ould be carried out.	
5.5.1 Encumbrance Ass				
		2010 (Clause 5.6.3) the test subjects shall e uit shall drain sufficiently to avoid causing e		
Additionally 50N Suits sho	ould be marked in accordance with the follo	owing statement:		
6.5 50N Flotation Suits				
Each PFD shall be marke	ed with the details in 6.2 and the following:			
"When a 50N Suit is worn and used away from a bank or shore where help or means of rescue are NOT close at hand, the suit should be worn in conjunction with a Lifejacket, performance level 275."				
This information should	I be considered as state of the art until t	he official amendments are published.		
	is the common sense of the experts of the procedures of CEN and ISO.	VG 8 and also those responsible for the \$	Standardisation of PFD's	



PPE-R/08.00	7
Version 1	

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 8			∨ Vertical Group	21.04.2018
			Horizontal Committee EU PPE Working Group	21.04.2018 29.11.2019
Question related to	☐ PPE Regulation		N: EN ISO 12402-7: SO 12402-7:2007	Other:
Article:	Annex:	Clause: 4.7	7	
Key words:				
Hardware				
Question:				
	methods when testing hardware according to ire test only (as intended).	clause 4.7 a	are based on specific testing of	combination of webbing and
Solution:				
The intention of the tes	t must be to verify the actual strength of the b	ouckles after	several exposures.	
The following solution i	s recommended:			
No buckle may fail due webbing is used for the	to webbing breakage or slippage. If failure or test.	ccurs due to	the webbing it is recommended	that another type of
	s for the specific webbing and closure combir Subject Performance Test.	nation are ve	rified in clause 5.5.1, Mechanica	al Properties Test and partly



PPE-R/08.009
Version 1

		RECOMMEND	JATION FO	K UƏE	
	of pages: 1			Approval stage :	Approved on :
Origin : \	/ertical Group 8			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question	related to [☐ PPE Regulation		N: EN ISO 12402- :2010 and ISO 12402- :2010	Other:
Article:		Annex:	Clause: 5.3	3.4	
Key word	ds.				
•		and testing procedures for 2 piece 50N flo	tation suits		
Question	1:				
The follo	wing points were	discussed at the last VG8 meeting on 16	6th June 2010	with regards to testing of 2 piec	e flotation suits:
1.	requirements as	er wishes to test and certify a 2 piece flots s individual pieces, due to the likelihood of e device does not work as a PFD unless w	of either piece	being worn as a single item, or,	
2.		vidual pieces be tested in accordance wit 0? i.e. the jacket is tested alone, the trou			
Solution:					
1.	Each piece of a	2 piece set must meet the minimum buo	yancy require	ments according to ISO 12402-	5:2006+A1:2010.
	It is not satisfac	tory for the product only to be marked as irs in warm/ cold temperatures.		•	
2.		2 piece set must meet the in water requidividual garments and as a combination of			requirements must be met



PPE-R/08.010	
Version 1	

TEOOMINE TO A	I A A A A	
Number of pages: 1	Approval stage :	Approved on :
Origin: Vertical Group 8	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
	☑ EN/prEN: EN ISO 12402- :2007+A1:2011	Other:
Article: Annex: C	Clause: 4.8, Table 12	
Key words:		
Inherently buoyant material – Thickness of foam		
Question:		
The standard does not clearly spell out which thickness shall be tested	according to EN ISO 12402-7.	
This can be a potential problem e.g. if a device is manufactured with a tested according to EN ISO 12402-7.	5 mm foam but only the foam in the thick	ness of 30 mm has been
It is FORCE Technology's experience that the thinner layers of foam at thicker layers.	re more likely to fail the tests mentioned i	n EN ISO 12402-7 than
May a manufacturer use a foam thickness which thickness have not be specified in EN ISO 12402-7, clause 4.1.2?	en tested according to EN ISO 12402-7	or covered be a range as
Solution:		
No - Any type of inherently buoyant material of the same thickness as a EN ISO 12402-7:2007+A1:2011, clause 4.8 or be covered by a range a range has been successfully tested in accordance with EN ISO 12402-	according to EN ISO 12402-7:2007+A1:2	



PPE-R/08.011	
Version 1	

Number of pages: 1	Approval stage : Approved on :	
Origin : Vertical Group 8	 ✓ Vertical Group ✓ Horizontal Committee ✓ EU PPE Working Group ✓ 21.04.2018 ✓ 29.11.2019 	
	EN/prEN: EN ISO 12402-4:2006	
Article: Annex: Cla	ause: 5.6.3.1	
Key words: In water performance - faceplane		
Question: The standard ISO 12402-4:2006+A1:2010 has minimum in water require and face plane (min 20°). The EN 395:1995 standard did not have a requirement for face plane.	ements for Freeboard (min 80mm), Body angle (min 30° degrees)	
The EN 333.1333 standard did not have a requirement for face plane.		
Solution: The requirement for face plane on a 100N device is replaced with the requirements of a 100N device under EN 395:1995.	quirement below in order to bring it in line with the existing	
Requirement for 100N devices: The face plane must be positive.		



PPE-R/08.013	
Version 1	

		KLCOWINL	NUATION FOI	\ UJL	
Nur	mber of pages: 1			Approval stage :	Approved on :
Oriç	gin : Vertical Group {	3		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Que	estion related to	☐ PPE Regulation	⊠ EN/prE 7:2007+A1	N: EN ISO 12402- :2011	Other:
Arti	cle:	Annex:	Clause: 4.2	and Table 1, 4.4 and Table 5	
Key	words:				
We	bbing and Thread re	equirements			
Que	estion:				
1.		ad and structural webbings in accordanc uirement after the exposure to accelerate			2-7:2007+A1:2011 is the
2.	in the accelerated	e length requirement for structural webb weathering chambers. Most typical acce mm x 50 mm. Therefore is it necessary	elerated weathering	ig chambers have a specimen	
Sol	ution:				
1.	No. If a webbing or thread has a tensile strength which far exceeds the minimum requirement in accordance with ISO 12402-7:2007+A1:2011 after standard conditioning, but then does not retain 60% of the tensile strength following the accelerated weathering exposure, it is unfair to fail that sample if the tensile strength is still higher than the minimum requirement prescribed in the standard. It was agreed that these samples should not be classed as a fail as the tensile strength is still greater than the minimum tensile strength requirement.				the accelerated weathering rescribed in the standard. It
	It was therefore pro	posed that the requirements should be	changed in Table	1 for sewing thread and Table	5 for webbings to state a
	minimum requirement	ent following the accelerated weathering	g exposure instead	d of retaining 60% strength as f	ollows:
	For sewing thread	I in Table 1 – Single strand breaking:			
	Minimum requirer	nent following standard conditioning	= 25N		
	Minimum requirer	nent following accelerated weathering	g = 15N		
	For structural web	bbing in Table 5:			
	Minimum requirer	nent following standard conditioning	= 1600N		
	Minimum requirer	ment following accelerated weathering	g = 960N		
2.		that it would be acceptable to use the sa le is to be long enough to allow sufficier m in length.			



PPE-R/08.014 Version 1

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	8		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE 7:2007+A1	N: ISO 12402- I:2011	Other:
Article:	Annex:	Clause: 4.	1.6.4 and 4.3.3	
Key words: Colour and illumination	issues			
	there is a variation of results between test labent used. It has been suggested that there shothis acceptable?			
Solution: Yes. A ±5% tolerance	should be used for the tests prescribed in ISC) 12402-7 Cl	lauses 4.1.6.4 and 4.3.3.	



PPE-R/08.015)
Version 1	

Number of pages: 1	Approval stage : Approved on :
Origin : Vertical Group 8	 ✓ Vertical Group ✓ Horizontal Committee ✓ EU PPE Working Group ✓ 21.04.2018 ✓ 21.04.2018 ✓ 29.11.2019
	EN/prEN: ISO 12402-
Article: Annex: Cla	ause: 4.9 & Table 13
Key words: Inflation Chamber Material	
Question: Where an inflation chamber material has previously been tested and pastonly a change in colour of textile has occurred, is it necessary to repeat	sed all of the relevant sections of Clause 4.9 and Table 13, and all the tests in Clause 4.9 Table 13 on the additional colour?
Solution: No. It is only necessary to repeat the following tests on the additional colour:	our as these are the tests that may be affected by the change of
4.9.2.1 Tensile strength test 4.9.2.2 Trapezoid tear strength test	



PPE-R/08.016
Version 1

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 8	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to PPE Regulation	⊠ EN/prEN: ISO 12402- 9:2006+A1:2011	Other:
Article: Annex:	Clause: 5.5.9, 5.5.9.3	
Key words: Buoyancy test method		
Question:		
The standard currently states:		
5.5.9 Buoyancy test		
'If the PFD contains inflatable buoyancy, it shall be inflated through the inflation (or 1.4 kPa \pm 0.1 kPa, if orally inflated). The PFD shall then be		
The buoyancy test should be performed with the inflatable PFD inflate intended use and performance. What is the correct method to be used		
Solution:		
The following method should be used when testing inflatable PFD's:		
Proposed Method:		
To determine the working pressure of the Inflatable PFD the correct s pull cord. The PFD shall be left for 5 min. The internal pressure of the		
This should be repeated a total of 3 times.		
The working pressure of the Inflatable PFD is determined by taking at	n average of the 3 pressure measurements	5.
The 24h buoyancy test is then performed with the PFD chamber inflat	ed by air to the determined working pressu	ure.



PPE-R/0	8.018
Version 1	1

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 8	✓ Vertical Group✓ Horizontal Committee	21.04.2018 21.04.2018
	 ☑ Florizontal Committee ☑ EU PPE Working Group 	29.11.2019
	EN/prEN: ISO 12402- 2006+A1:2010	Other:
Article: Annex: Cla	ause:	
Key words:		
Constant wear devices		
Question:		
Test Houses have been receiving several enquiries for testing of integral Harness due to the increase in Wind Farm Activity. Such devices are a contract of the contract of th		
What would be the testing requirements of such devices?		
Solution:		
Testing of such devices will be under ISO 12402-6+A1:2010 as special p	ourpose devices.	
PFD's must meet the requirements for both the Lifejacket under ISO 124 harness (current valid versions of EN 341, EN 353, EN 354, EN 355, EN		
This type of device is to be exempt from the donning test.		



PPE-R/08.019)
Version 1	

	Horizontal Committee	21.04.2018 21.04.2018
□ E		29.11.2019
Question related to PPE Regulation SEN/prEN: ISC 7:2007+A1:2011		Other:
Article: Annex: Clause: 4.11.1.3	3	
Key words: Oral inflation systems		
Question: Paragraph 6 under clause 4.11.1.3 for Oral inflation systems states: 'It shall not be possible to lock an oral inflation mechanism in the open or closed position mechanism open.' Question: Is it possible to test a PFD which includes a lockable oral inflation mechanism.		
Yes, but this should be limited to specific applications which are only to be used by specific applications.	pecially trained persons.	



PPE-R/(80	.022
Version	1	

~ * *	RECO		
Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group	8	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prEN: EN ISO 12402- 7+A1:2011	Other:
Article:	Annex:	Clause: 4.8.2.7	
Key words: IRM Oil, Foam testing			
removed from existing	tables of ISO 12402-7:2007+A1:	erial it references use of ASTM Reference Oil No. 2. All r 2011. Is the use of ASTM Reference Oil No. 2 still to be in accordance with ISO 12402-7:2007+A1:2011, clause	used for this exposure?
Solution:			
Replace ASTM Refethroughout the standar		according to EN 590 (current valid version) to be consistent	ent with exposures
cases in modern PFD's a buoyancy test is a be	s the foam is encased in an outer tter indication of compliance crite	ensile strength of the foam following the exposure is no fabric and so does not play a structural part for strengtheria as this is the primary function of inherently buoyant testing in accordance with ISO 12402-7:2007+A1:2011,	i. It was agreed by VG8 that oam.
,	- per Table 12 of ISO 12402-7:200 (min thickness of 20mm)	07+A1:2011)	
Exposure 70h in Diesel fuel acco	rding to EN 590 (current valid ve	rsion)	
Requirements			
The maximum loss of b	puoyancy for the average of all sa	amples shall not exceed 10 %.	
		nd after the exposure. The maximum loss of volume in a	



PPE-R/0	8.023
Version	1

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	8		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE 3:2008	N: EN 13138-1,-2,-	☐ Other:
Article:	Annex:	Clause: 5.	1	
Key words: Colour requirements				
colours. Transparent o appropriate although to	008, clause 5.1 under general requirements, it r dull colour materials are not acceptable. It is wo colour devices in green with white are also able as 'high definition colours'?	recommend	ded that the colour range yellow	
angle when in use. Wh	e manufactured in bright colours that are in cololly transparent or materials in any shade of u lour requirements apply only to the neck should be a s	indecorated	blue in the visible areas when i	



PPE-R/08.026
Version 1

Number o	of pages: 1		Approval stage :	Approved on :
Origin : V	ertical Group 8		∨ Vertical Group	21.04.2018
			∀ertical Group Horizontal Committee	21.04.2018
				29.11.2019
Question	related to PPE Regulation	⊠ EN/prE 9:2006+A1	N: ISO 12402- :2011	Other:
Article:	Annex:	Clause: 5.5	5.10.2.1	
Key word	s:			
Inflation to	ests			
Question:	:			
There is r	no test method included in 5.5.10.2.1 for the inflation tests.	What is the	correct method to perform these	e tests?
Solution:				
A test me	ethod should be included. The standard currently states:			
	Inflated PFDs			
5.5.10.2.1 The inflation test shall be carried out twice: once at (-5 ± 1) °C and once at $(+30 \pm 1)$ °C.				
The follow	wing method should be used:			
a) Two PFDs shall first be conditioned by exposing them for (5,0 ± 0,1) h at a temperature of (-5 ± 1) °C. The two inflatable PFDs are then inflated. One shall be activated using the automatic inflation system by placing it in sea water at a temperature of (-1 +2) °C and the other shall be activated using the manual inflation system.				
b)	b) The two PFDs shall then be conditioned by exposing them for $(5,0 \pm 0,1)$ h at a temperature of $(+30 \pm 1)$ °C. The two inflatable PFDs are then inflated. One shall be activated using the automatic inflation system by placing it in sea water at a temperature of $(+30 \pm 2)$ °C and the other shall be activated using the manual inflation system.			



PPE-R/(08.027
Version	1

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	8		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: ISO 15027-1:2012	Other:
Article:	Annex:	Clause: 4.	12.2	
Key words:				
Resistance to illumination	on			
Question:				
In the 2012 version of I	SO 15027 there is no test to prove pass/fail c	riteria follow	ing the illumination test. How sh	nould this be assessed?
Solution:				
The seam strength test	in 4.12.3 should be carried out after the illum	ination test	to validate pass/fail criteria.	
least 300 N per 25 mm. EN ISO 13934-2, using	irement in the 2002 version of the standard. Following exposure to rot or illumination, specimens of at least 60 mm width and with seam, cloth and fastening devices (including	, the tensile at least 100	strength shall be measured usi mm of material on each side of	ng the grab method given in



PPE-R/0	8.028
Version	1

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 8	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to PPE Regulation	⊠ EN/prEN: ISO 15027-1:2012	Other:
Article: Annex:	Clause: 4.12.2	
Key words: Thermal testing		
Question: For dual approval of immersion suits in accordance with ISO 150 standards?	027 and SOLAS can one set of thermal testing	be read across for both
Solution: Where thermal tests have been carried out in accordance with S 3:2012 approval where the test method used (i.e. temperature a Where thermal tests have been carried out in accordance with IS SOLAS approval (unless the test method used for ISO 15027-3: testing requirements). Where the test method used is not the sar requirements.	and exposure time) are identical to the requirent SO 15027-3:2012 requirements the results care: 2012 (i.e. temperature and exposure time) is identified.	nents of ISO 15027-3:2012. Inot be used in support of a dentical to that in the SOLAS



PPE-R/08.029 Revision 01 Language: E

Number of pages: 1	Approval stage : Approved on :
Origin: VG8	 ✓ Vertical Group ✓ Horizontal Committee ✓ EU PPE Working Group ✓ 29.11.2019
	☑ EN/prEN: EN ISO 12402- ☐ Other: 2007+A1:2011
Article: Annex: C	lause: Table 13, Annex B
Key words:	
Abrasion Resistance for Inflatable Chamber Material	
Question:	
Solution:	
VG8 propose that the Wyzenbeek Method is the appropriate abrasion	method.
As the intent of the compliance criteria is to validate the tensile streng performed in accordance with ISO 13934-2 after the method defined	



PPE-R/08.032)
Version 1	

Number of pages: 1	•		Approval stage :	Approved on :
Origin: Vertical Group	8		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation		N: EN ISO 12402- :2010, EN ISO 12402- :2010	Other:
Article:	Annex:	Clause: 5.6		
Key words:				
Face plane angle and 1	Forso angle			
Question:				
the requirements for tru	ISO 12402-2:2006+A1:2010 for lifejackets levant angle and face plane angle relate to each version of the standards?			
Solution:				
	ause 5.6.3.1 set the requirements for the average 12402-3:2006. The requirements for each			quirements of EN ISO
	torso angle shall be less than 20° behind vert		est subject is as follows.	
•	face plane angle shall be less than 30° above			
·	•			



PPE-R/(08.033
Version	1

	TLOOMINE INDA		1 002	
Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	8		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prEN: ISO 12402-9:2006 +A1:2011		Other:
Article:	Annex:	Clause: EN ISO 12402-9:2006, clause 5.1, EN ISO 12402- 9:2006+A1:2011, clause 5.5.1		
Key words: Order of testing: Tempe	erature cycle test and rotating shock bin test			
after submitting the sar In the amendment EN I	12402-9:2006, clause 5.1, in the last sentend inples to the temperature cycling test (see 5.5. SO 12402-9:2006+A1:2011 clause 5.5.1, the	.3) and the r	otating shock bin test (see 5.5.2	2).
added. What is the correct orde	er for testing?			
Solution:				
The temperature cycle other tests.	test shall always be performed first, then the r	rotating sho	ck bin test. The two tests shall b	pe performed prior to all
temperature cycle test. most likely brake/crack	tentially brake down of a material/component If a material/component becomes e.g. brittle or if it is subjected to the rotating shock bin test etected or be very hard to detect.	due to the te	emperature cycle test, then the	material/component will
In EN ISO 12402-9:2006, clause 5.1 mentions the temperature cycle first and then the rotating bin test even though the test clause for rotating shock bin test was 5.5.2 and the clause for temperature cycle was 5.5.3. This was because it was part of the requirement to carry out the test in this order. Unfortunately this has been lost with the introduction of Table 1 and Table 2 in ISO 12402-9:2006+A1:2011.				



PPE-R/08.034 Revision 01 Language: E

×	RECOMMENI	DATION FOR	RUSE	
Number of pages: 3			Approval stage :	Approved on :
Origin : VG8			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	05.10.2018 13.03.2019 29.11.2019
Question related to F	PPE Regulation PPE Guidelines	⊠ EN/prEN	: ISO 12402-7:2007+A1:2011	☐ Other:
Article:	Annex:	Clause: 4.9		
Key words: Unsupported Inflation Cha	amber Materials			
Question:				
the inflation chamber. Th RF welded no differently t product has had great suc already been updated to t	ed inflatables within the United States a e design in question utilizes a thicker la than standard inflation chambers, howe ccess within the US and Canada based test this material since most of the mate beiving requests for certification to ISO 1	yer of PU that a ver it is allowed on its very simprial tests for sta	acts as the inflation chamber ind to "float" within a separately se plistic design. The US and Car andard inflation chamber materi	dependently. The material is who cover material. This adian standards have al isn't relevant for this
Solution:				
proposal includes a new 7	no requirements within ISO 12402-7, it is a sale to include the new requirements. Is been replaced with the equivalent ISO	The requireme	nts are consistent with the US a	and Canada except that all
Proposal follows on page	s 2 and 3.			



PPE-R/08.03	5
Version 1	

×				
Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	8		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation		N: EN ISO 12402: 010 Parts 2-6	Other:
Article:	Annex:	Clause: n/a		
Key words:				
Pouch type PFD's				
Question:				
Is it possible to approve	e a pouch type PFD as a Lifejacket?			
Solution:				
For non-specific pouch general use by no defir buoyancy provided. It n	nd no defined end user. type PFD's in accordance with ISO 12402-6 ned end user, this type of PFD can only be ce nust also be marked appropriately with addition PFD without the necessary user intervention	ertified as a pe	erformance level 50 buoyancy,	regardless of the amount of
Yes, if restricted to trained users only and for special application which has to be defined in detail For a pouch type PFD that is intended for a Special Application PFD in accordance with ISO 12402-6 and the relevant part of ISO 12402 dependant of the level of performance claimed. All performance requirements (e.g. self-righting, freeboard, face and body angle) must be fulfilled with the exception of automatic inflation and bringing the candidate directly in the correct floating position after the water entry test. Additional donning tests are to be performed to ensure that donning is simple both in and out of the water and achieved within the one minute time requirement, including any secondary donning. In addition, the device must be appropriate for its special application and must be restricted to trained users only. It must also be marked appropriately with additional warnings on the marked information and user information to inform the user that it is a special application PFD and it is not a Lifejacket without the necessary user intervention.				



PPE-R/(08.036
Version	1

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 8			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to PPE I	Regulation		N: EN ISO 15027-1:2012 5027-2:2012	☐ Other:
Article:	Annex:	Clause: 4.1	2	
Key words:				
Preconditioning of immersion suit	t material samples			
Question:				
In ISO 15027 for immersion suit s	samples the temperature cycling and all samples too when performing the			prior to all other tests but
Solution:				
Yes				
	ough the temperature cycling test as applicable for the material samples.	a preconditi	oning to all the individual mate	rial tests in clause 4.12, but



PPE-R/08.038 Revision 00 Language: E

RECOMMENDATION FOR USE

Approval stage :

Number of pages: 1			Approval stage :	Approved on :
Origin : VG8			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	13.12.2017 13.07.2018 05.11.2018
Question related to		⊠ EN/prEN: EN ISO 12	2402-6:2006+A1:2010	☑ Other:
Article:	Annex:	Clause: 5.4	4	
Key words:				
PFDs for fire fighting				
Question:				
What compatibility test	ing is to be carried out for PFDs	specifically intended for fi	re fighting application?	

1. In water performance compatibility testing

PFDs intended specifically for fire fighting application shall be tested for in water performance in accordance with 5.6 of EN ISO 12402-9:2006+A1:2011 with each ensemble of equipment (i.e. protective clothing, breathing apparatus and head protection) it is intended to be worn in conjunction with. It is not required to test for in water performance in swimwear only. The likelihood is that for this type of PFD the design is specialised to accommodate the fire fighting equipment (i.e. larger neck aperture) and it is therefore unlikely that a PFD will meet the in water performance requirements with test subjects wearing swimwear only.

The PFD must meet the performance requirement for the relevant part of ISO 12402 depending on performance level with the following

2. 180°C hot exposure test

Solution:

additions:

The whole PFD shall be tested in accordance with ISO 17493 at a temperature of (180 ± 5) °C for 5 min. After exposure the performance of the PFD shall be proved by an in-water test in accordance with ISO 12402-9:2006, 5.6.5. All components of the PFD including the gas cylinder shall be exposed. Adequate provisions must be incorporated in to the design of the PFD to ensure that the gas cylinder is protected during exposure to heat.



PPE-R/08.041 Revision 01 Language: E

	INCOMMEND.	AHONTO	\ UUL	
Number of pages: 2			Approval stage :	Approved on :
Origin : VG8			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	13.12.2017 13.07.2018 05.11.2018
Question related to		⊠ EN/prEN	N: EN 14225-1:2017	Other:
Article:	Annex:	Clause:		
Key words:				
Surface wetsuit testing	g requirements			
Question:				
Working Group minut	surface activities such as water skiing etc. are es from 2013) and therefore require EC typowetsuits, only EN 14225-1 which is for diving	e-examination		
What testing requirem PPE Regulation (EU)	nents are to be used to show compliance wit 2016/425?	th the basic he	ealth and safety requirements	laid down in Annex II of the
Solution:				
	4225-1 shall be used with exemptions of thos	se requiremen	ts specific for diving application	1.
Therefore wetsuits into	ended for surface activities shall comply with	the following o	lauses of EN 14225-1 (see Ta	ble overleaf).



PPE-R/08.042 Revision 00 Language: E

Number of pages: 1		Approval stage :	Approved on :
Origin: VG8		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	13.12.2017 13.07.2018 05.11.2018
Question related to PPE Re	2-5, Clause	N: EN ISO 12402 Parts e 5.5.10.2.3 402-9:2006+A1:2011, 5.9.3f)	☐ Other:
Article: An	nex: Clause: Se	e above	
Key words:			
Force to inflate test for inflatable PF	·D's		
Question:			
incorporated on an inflatable PFD v	when testing in accordance with EN ISO 1240	2-9:2006+A1:2011, Clause: 5.8	5.9.3f)?
Solution:			
A higher upper load is required to	rate the inflation mechanism on an inflatable F activate the manual inflation mechanism inco duct there are additional resistance factors to	orporated on the PFD than that	on the inflation mechanism



PPE-R/08.043 Revision 02 Language: E

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Number of pages: 1			Approva	l stage :	Approved on :	
Origin : VG8				ical Group zontal Committee PPE Working Group	16.05.2018 13.07.2018 05.11.2018	
Question related to		⊠ EN/prEN: 5:2006/A1:20		12402-	Other:	
Article:	Annex:	Clause: N/A				
Key words:						
PFD Hydration Pack						
Question:						
with PPE Regulation 20 activities such as Paddle inclusion of a hydration	Manufacturers may look to include a hydration pack built into or designed to be used with a manufactured PFD which is to be compliant with PPE Regulation 2016/425 and EN ISO 12402-5:2006/A1:2010. The hydration pack would serve as a store for liquid drinks used during activities such as Paddle boarding, Kayaking, Sailing. Currently no testing is specified for how to address any additional risks posed by the inclusion of a hydration pack within the PFD. What additional testing or evaluation should be conducted to ensure hydration packs do not affect performance of the PFD?					
Solution:						
The following tests are to	o be conducted on the PFD with the hydrat	ion pack incor	porated:			
	st (Clause 5.3.4.2 of EN ISO 12402-5 11): to be carried out with the hydration p					
9:2006+A1:20	ng (Clause 5.6.3 of ISO 12402-5:2006 11): to be carried out with the hydration p water performance requirements should be	ack filled with				
	(Clause 5.6.2 of ISO 12402-5:2006+A 11): to be carried out to ensure that donnir					
	an level 50 that have a built hydration pac in water performance should be satisfied in				ick, the relevant clauses for	



PPE-R/08.044 Revision 01 Language: E

	RECOMMENDA	ATION FOR USE	
Number of pages: 1		Approval stage :	Approved on :
Origin: VG8 (July 2018)		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	05.10.2018 15.09.2019 29.11.2019
Question related to	☑ PPE Regulation	⊠ EN/prEN: EN 14225-2:2017	Other:
Article:	Annex: II, 1.4	Clause: 7.1	
Key words:			
Information supplied with	a diving drysuit		
Question:			
	Customer information to be supplied at the	se 7.1 for information to be supplied with the point of sale) duplicated as an editorial er	
Solution:			
To satisfy PPE Regulation	n annex II 1.4, the previous requirements o	of EN 14225-2:2005, clause 7.1 shall be use	d, as follows:
- Name and addr	ress of the manufacturer and/or his authoris	sed representative;	
 Type of suit; 			
- Number of this	document;		
 List of all the co 	imponents supplied;		
 If the inflation h 	ose is provided with a restrictor to limit airfl	low, a statement to this effect;	
	ies and spare parts that are available;		
 Explanation of a 	any pictograms and markings.		



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Version 1

* *		
RECOMMEN	IDATION FOR USE	
Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 8	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	
Question related to PPE Regulation PPE Guidelines	⊠ EN/prEN: : EN 12402-2, 3, 4 & 5:2020	☐ Other:
Article: Annex:	Clause: 5.1.4	
Key words:		
Visibility of inflation system indicators		
Question:		
It is not currently clear how to assess the indicator visibility requi	rement in accordance with EN ISO 12402:20	020 Parts -2, -3, -4 & -5.
What is to be assessed to be a sufficient indicator visibility for	inflatable PFDs in clause 5.1.4?	
EN ISO 12402-2:2020 clause 5.1.4 Inflation status indicators "Inflatable lifejackets shall indicate if the inflator is correctly and 12402-6:2020, 6.6. All inflation status indicators shall be groupe they are viewed simultaneously when examined prior to donning a buddy after donning the PFD."	d or located such that when installed on a	PFD in their intended position,
Solution:		
It shall be possible to inspect the inflation mechanism indicators buddy. For example, by unzipping or opening part of the cover access the area the inflation mechanism is located.	to inspect, or temporarily readjusting the F	
The manufacturer's instructions shall be taken in to consideration	when carrying out this evaluation.	



Version 1

RECOMMENDATION FOR USE

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Gro	up 8		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	28.05.2021 01.10.2021 18.11.2022
Question related to		⊠ EN/prE	:N: : EN 12628:1999	Other:
Article: 5	Annex: II	Clause:		
Key words: EU type	examination - diving combined buoyancy and re	scue devices	}	
Question:				
A	000 4000 to D' 'conserve 'con Occilion I		I I	

As standard EN 12628:1999 for Diving accessories - Combined buoyancy and rescue devices, is not yet harmonised, what additional requirement, testing or evaluation should be conducted to ensure compliance with Essential Health and Safety Requirements (EHSRs) of PPE Regulation (EU) 2016/425, Annex II.

Solution

On the basis of gap analysis between EN 12628:1999 (Diving accessories - Combined buoyancy and rescue devices) and EN1809:2014 (Diving equipment - Buoyancy compensators) and gap analysis between EN1809:2014 and EN1809:2014+A1:2016, the following requirements for marking and instructions for use shall be taken into account during assessment, and particularly chapter 5.13.5, Pass and Fail criteria, for practical performance tests which are not explicit in EN12628:1999:

Essential requirements of Regulation (EU) 2016/425	Article(s) / paragraph(s) standard EN 12628:1999	Additional Article(s) / paragraph(s) standard to comply with EN 1809-2014+A1-2016
1.1.1 Ergonomics	4.2.1, 4.2.2, 4.2.3, 4.2.4 , 4.2.6, 4.2.7 ,	5.13.5
1.2.1 Absence of inherent risks and other nuisance factors	4.2.3, 4.2.4, 4.2.5 , 4.2.6, 4.3.1 , 4.3.2 , 4.3.3 , 4.5	5.13.5
1.2.1.2 Satisfactory surface condition of all PPE parts in contact with the user	4.1, 4.2.1	
1.2.1.3. Maximum permissible user impediment	4.1, 4.2.1, 4.2.2, 4.2.3, 4.2.4, 4.2.5, 4.2.6, 4.2.7, 4.3.1, 4.3.2, 4.3.3	5.13.5
1.3.1 Adaptation of PPE to user morphology	4.1, 4.2.7, 4.3.1 , 4.3.2, 4.3.3	5.13.5
1.3.2 Lightness and strength	4.1, 4.2.1 , 4.2.2 , 4.2.3 , 4.2.4 , 4.2.5 , 4.2.6 , 4.2.7 , 4.3 , 4.4 , 4.5	5.13.5
1.4 Manufacturer's instructions and information	Article 6 , 7.1	6.2.4 j)
2.1 PPE incorporating adjustment systems	4.2.7, 4.3.2 , 4.3.3	5.13.5
2.4. PPE subject to ageing	4.4, Article 6	Article 6 : 6.1 h)
2.10. PPE for connection to complementary equipment external to the PPE	4.2.2, 4.3.2, 4.3.3 , 4.3.4	5.13.5
2.12. PPE bearing one or more identification markings or indicators directly or indirectly relating to health and safety	Article 6 , 7.2	6.1 h) et i)
2.13. PPE capable of signalling the user's presence visually	4.2.9	
3.4.1. Prevention of drowning	4.1 , 4.2, 4.4 , 4.6 , Additionally 4.3	5.13.5
3.4.2. Buoyancy aids	4.1, 4.2	5.13.5
3.11 Diving equipment	4.1, 4.2, 4.3 , 4.4, 4.5, 4.6	5.13.5

Note: The clauses in black text are the articles already written in Annex ZA of standard EN 12628 (according to the PPE Directive). The clauses in red text are the article of EN 12628:1999 that are proposed to be added, corresponding to the equivalent articles included in Annex ZA of EN1809:2014+A1:2016 (according to the PPE Directive).



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Number of pages: 1	Approval stage : Approved on :
Origin: VG8	The state of the s
Origin : VOO	
	✓ Horizontal Committee 07/12/2023✓ EU PPE Expert Group 26/05/2024
	EN/prEN: EN ISO 12402-7:2020
Article: Annex: Cla	ause: 4.8
Key words:	
Foam Flotation Material	
Question:	
How is the testing of multiple thickness of foam flotation material to be he & Table 12?	andled when testing in accordance with EN ISO 12402-7:2020, 4.8
& Table 12!	
Solution:	
Scenario One: For an existing foam type previously tested, where an add	ditional thickness is requested:
Where an additional foam thickness is to be introduced to an existing type	
to other foam thicknesses already tested of the same foam type, the new of the lower thickness may be used in support of conformity for all tests e	
12402-7:2020, which should be tested for at least the thinnest and the th	
Scenario Two: For a completely new foam type:	
Where a new foam type is submitted, a test of the lowest and highest thic	cknesses shall be tested and these results may be used in support
of conformity for all intermediate thicknesses.	



PPE-R/08.052

Version 00 Language: E

RECOMMENDATION FOR USE

Number of pages: 1			Approvai stage :	Approved on :
Origin : FORCE Certi	ification A/S / VG8		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	29/09/2022 07/12/2023 26/05/2024
Question related to	☐ PPE Regulation ☐ PPE Guidelines	2:2020 to I	N: EN ISO 12402- EN ISO 12402-5:2020 2402-9:2020	Other:
Article:	Annex:	Clause: 5.	1.5, 5.5 & 5.6.1.10 and 5.5.4	
Key words:				
Ride-Up prevention s	ystem			
Question:				
When a lifejacket is e	equipped with a ride-up prevention system, is	this deemed a	is a structural part, and what te	esting needs to be applied?
Solution:				

1. For Lifejackets intended to be used by persons < 30 kg:

Note: Where a ride-up prevention system is mandatory.

- The materials for the ride-up prevention system are structural and must be tested and meet the applicable requirements of EN ISO 12402-7:2020*.
- The performance tests in ISO 12402-9:2020, 5.5 (vertical strength and lifting loop strength) and 5.6 (Human subject performance tests) are only performed with the ride-up prevention system in place.

2. Lifejackets to be used by persons 30 kg and greater:

Note: Where a ride-up prevention system is optional.

Scenario 1:

- If the manufacturer does not instruct the user to always use the ride-up prevention system, the ride-up prevention system is regarded as optional and the performance tests in ISO 12402-9:2020, 5.5 (vertical strength and lifting loop strength) and 5.6 (Human subject performance tests) shall be performed both with and without the ride-up prevention system in place. The performance requirements must be met both with and without the ride up prevention system in place for compliance.
- The materials or components are not considered as structural if performance is achieved both with and without the ride up prevention system in place. Therefore, the tests in ISO 12402-7:2020 may be waived.

Scenario 2:

- If the manufacturer states that the ride-up prevention system must be used to obtain sufficient protection and performance, the materials for the ride-up prevention system are structural and must be tested and meet the applicable requirements of EN ISO 12402-7:2020*.
- The performance tests in ISO 12402-9:2020, 5.5 (vertical strength and lifting loop strength) and 5.6 (Human subject performance tests) are only performed with the ride-up prevention system in place.

*3.28 structural parts, materials and components

Parts, materials or components that are integral to the device and that are essential for its correct function and performance.

Note: When testing for strength, and securing the hardware on a ride prevention system, consideration shall be given to ensure that the ride up prevention system is in place so that it is representative to how it will be worn.



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Version 01

RECOMMENDATION FOR USE						
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Number of pages: 1			/	Approval	stage :	Approved on :
Origin : Vertical Group 8			⊠ Horiz	ontal Committee	31/01/2022 30/04/2022 31/08/2023	
Question related to P	PE Regulation	PPE Guidelines	⊠ EN/prEN 9:2020	: EN ISC	D 12402-	☐ Other:
Article:	Annex:		Clause: 5.6. Table 3, Tab		1.2 & 5.6.1.3, Table 5	
Key words:						
Test subject selection crite	eria Multi-Sized Buo	yancy Aids (level 50)				
Question: EN ISO 12402-9:2020 incl not currently differentiated subject selection criteria?		•				5.6.1.2 (para 2), but this is a loyancy aids for test
Solution:						
Multi-Sized Buoyancy Ai	ds (level 50)					
For a multi-sized buoyancy shall be tested. It is recogn requirements are lower that	nised that a smaller	number of test subject	ts is tested for	buoyand	cy aids, because the ir	
Footnote a) of Table 3 app	olies across the full	range of sizes so that	no more than t	two thirds	s of test subjects shall	be of any one gender.
Footnotes b), c) and d) of	Table 3 do not appl	y, as the manufacture	rs stated user i	mass/siz	e range is used for sul	bject size selection.
Footnotes e) and f) of Tab (±5 %) of the manufacture						est and largest body mass
See example below for a b	ouoyancy aid with 5	sizes, subjects should	d be selected a	s follows	:	
Buoyancy Aid Lowest mass range ±5 % Mid mass selection On 27k Upper mass range On	kg-40kg e subject between 75kg and 26.25 kg e subject between g and 38kg e subject between g and 42kg	40-60kg One subject between 38kg and 42kg One subject between 43kg and 57kg One subject between 57kg and 63kg	60-80kg One subject I 57kg and 63k One subject I 64kg and 57k One subject I 76kg and 84k	between g between g between g	80-100kg One subject betweer 76kg and 84kg One subject betweer 85kg and 95kg One subject betweer 95kg and 105kg	(upper adult mass range of Table 3)
the largest size category (>120kg, >1900mm)	of Table 3 shall be us	sed as the uppe	er cell.	·	gg-, a.o



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RESOMMENDATI	1	<u> </u>
Number of pages: 1	Approval stage :	Approved on :
Origin : FORCE Certification A/S / VG8	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	29/09/2022 07/12/2023 26/05/2024
	EN/prEN: EN ISO 12402-2:2020 EN ISO 12402-5:2020	☐ Other:
Article: Annex: Cl	ause: 6.2 t) & 7 e)	
Key words:		
Servicing information		
Question:		
EN ISO 12402-2:2020 to EN ISO 12402-5:2020 includes requirements f space for servicing dates. This is to be marked on the product, and to be follows:		
Marking, Clause 6.2 t) the expected servicing interval assuming average additional items (gas bottles, bobbins, retroreflective tapes, etc.) and the		be marked, including
Information supplied by the manufacturer, Clause 7 e) a description of a maintenance, and packing, if applicable.	iny spare parts and their replacement, in	structions for servicing,
Do these clauses apply to all types of PFD?		
Solution:		
Yes, but in the case of a level 50 inherently buoyant PFD, where the malife (i.e. due to a short product life/simple design) this servicing informati		quired during the product
In cases such as this, it is not deemed necessary to include a space for supplied by the manufacturer. However, the manufacturer must include prior to use, and to include information and guidance on how to inspect lifespan.	clear instructions for the end user to visi	ually inspect the product
This exemption must not be applied for any level 50 inflatable PFDs or \$6:2020.	special application level 50 PFDs in acco	ordance with EN ISO 12402-



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Version 00

RECOMMENDATION FOR USE

Number of pages: 1			Approval stage :	Approved on :
Origin: FORCE Certification A/S / VG8			✓ Vertical Group✓ Horizontal Committe✓ EU PPE Expert Group	
Question related to PPE Regulation PPE Guidelines 7:2			N: EN ISO 12402-	☐ Other:
Article: Annex:		Clause: Ta	ble 2	
Key words: Strength testing of fabric				
Question:				
Due to a change in numbering of the ex of woven fabric burst strength of knitted and previous version EN ISO 12402-7:2	fabric after expo	sure 4 (see comparison	020, there is now no requ table below for change be	irement stated for tensile strengthetween EN ISO 12402-7:2020
Tensile testing of woven fabric	ENI	Table 2 - Fabric ISO 12402-7+A1:2011		N ISO 12402-7:2020
Exposure description:	Exposure #	Requirement		Requirement
70 h immersion in fuel B according to ASTM D471-16 or diesel fuel according to EN 590:2013/Amd 1:2017b	3.1)	Following exposure 3 tensile strength shall least 260 N.	s, the 3)	Following exposure 3, the tensile strength shall be at least 260 N.
70 h immersion in 0,5 % detergent according to ISO 6330:2012	3.2)	Following exposure 3 tensile strength shall bleast 260 N.	, the 4) be at	No requirement stated.
		Table 2 - Fabric		
Burst strength of knitted fabric	EN	ISO 12402-7+A1:2011	EN	N ISO 12402-7:2020
Exposure description:	Exposure #	Requirement		Requirement
70 h immersion in fuel B according to ASTM D471-16 or diesel fuel according to EN 590:2013/Amd 1:2017b	3.1)	Following exposure 3 average of 10 sample shall retain at least 60 the strength determin following standard conditioning.	, the 3) ss % of	Following exposure 3, the bursting strength shall be at least 480 kPa.
70 h immersion in 0,5 % detergent according to ISO 6330:2012	3.2)	Following exposure 3 average of 10 sample shall retain at least 60 the strength determin following standard conditioning.	s % of	No requirement stated.
What is the correct requirement for tens	ile strength (wov	en fabric) and burst stre	ngth (knitted fabrics) after	exposure 4?
Solution: In line with EN ISO 12402-7:2007+A1: the same as that stated for exposure 3 Woven fabric: Following exposure 4, the	s, for each fabric	type, as follows:	s of EN ISO 12402-7:202	0, Table 2, for exposure 4 shall be
Trover labric. I ollowing exposure 4, ti	io torione sucrigu	n onali be at least 200 IV.		

Status: September 2024

Knitted fabric: Following exposure 4, the bursting strength shall be at least 480 kPa.



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Version 00

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Number of pages: 1		Horizontal Committee 07/		Approved on :
Origin: FORCE Certification A/S / VG8				03/12/2021 07/12/2023 26/05/2024
Question related to PPE Regulation	PPE Guidelines	EN: EN ISO	12402-	☐ Other:
Article: Annex:	Clause:	 Гable 12, clau	se 4.8.2.6.	
Keywords: Tensile testing of foam				
Question:				
In EN ISO 12402-7:2020 there has been an 'The tensile strength shall be not less the fabric.' This is 1000 times higher compared to the and this is an unachievable requirement for	nan 140 N/mm² for foam which is previous version of the standard E	a structural N ISO 12402-	part of the device	, i.e. not retained by a cover
Tensile testing of foam Table 12		Requir	ement	
Method/exposure	EN ISO 12402-7+A1:2	011	EN IS	O 12402-7:2020
Die A acc. ISO 1926:2009 / Standard conditioning.	140 kPa		140 N/m	nm² = 140.000 kPa
units from kPa to N/mm². Therefore, what is the correct requirement for	or tensile strength of foam?			
Solution:				
The requirement for tensile strength of foam 7+A1:2011 which was 140 kPa and when co				nt of EN ISO 12402-



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RECOMMENDA	ATION FOR USE
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Number of page	s: 2					Appro	oval stage :	Approved on :
Origin : VG8						⊠ F	Yertical Group Horizontal Committee EU PPE Expert Group	10/10/2023 07/12/2023 26/05/2024
Question related	l to	PPE Regulation PF	PE Guid	elines	⊠ EN/pr	N: EN	I ISO 12402-7:2020	Other:
Article:		Annex:			Clause: 4	11.12		
Key words: EN ISO 12402-7	'; Windo	w Material; Table 21						
Question:								
In the previous s	tandard s that th	EN ISO 12402-7:2007- e material shall have an	+A1:201	1, the elonga	tion require	ement f	ition of EN ISO 12402-7: ollowing the Accelerated no less than 30% of the a	
Elongation	See m	aterial thickness	metho	1 D 412-98, od A, bell die A	11	ס	Following exposure 2 not increase more than 30 % of the elongation at break to machine and cross-m Following exposures material shall not incoor decrease more that as-received elongation both the machine and directions.	an 70 % or decrease e as-received bad in both the hachine directions. 3 through 4, the rease more than 60 % an 50 % of the bon at break load in
	after Ad	02-7:2020 edition, the eccelerated Weathering (Standard condition Accelerated weath according to 4.1.6.	ning		than 30%.		ch Following experiments of the streng than 60 N. Following experiments of the streng than 50 N. Following experiments of the streng than 50 N. Following experiments of the streng than 10 % of the strength of the streng	osure 2, the th shall be no less osure 1, the elonot increase by more he original length. osure 2, the matencrease by more he exposure 1

This is a dramatic reduction in the elongation requirement for this type of window material.

Data from testing of previous window materials shows that there are no components which can meet the new requirements for elongation given in the 2020 edition of the standard.

VG8 are of the opinion that the latest 10% requirement has been taken from the existing UL1191 Edition 5 standard, but the requirement has been input incorrectly and instead of having a minimum elongation of 10% after standard conditioning, it is incorrectly stated as a maximum elongation of 10%.

Table 31.2 Window material

Test	Exposure	Test method	Number of samples	Compliance criteria
Tensile breaking strength and elongation	Standard Conditioning. Xe ₅₀₀	ASTM D412, Method A, Die A.	20 (5 samples in each direction for each exposure)	Following exposure 1, the minimum average strength shall be 62 N (14 pounds force) and the minimum elongation shall be 10% for each sample. Following exposure 2 the minimum strength shall be 53 N (12 pounds force).

How is Elongation of Window Material to be assessed under EN ISO 12402-7:2020 Table 21?

Solution:

Until the EN ISO 12402-7:2020 edition of the standard can be amended to requirements which can be met by the currently approved material the following requirements shall be adopted for window material:

The minimum tensile strength requirements for window material shall be applied as per EN ISO 12402-7:2020, Table 21:

Following exposure 1, the tensile strength shall be no less than 60 N.

Following exposure 2, the tensile strength shall be no less than 50 N.

The elongation requirements of EN ISO 12402-7:2007+A1:2011, Table 21 shall be applied:

Following exposure 2, the material shall not increase more than 70 % or decrease more than 30 % of the as-received elongation at break load in both the machine and cross-machine directions.



PPE-R/08.059
Version 00

RECOMMENDATION TO	IV OOF	
Number of pages: 1	Approval stage :	Approved on :
Origin : Horizontal Committee	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	31/08/2023 07/12/2023 26/05/2024
Question related to PPE Regulation PPE Guidelines EN/prE	EN: EN ISO 12402-7:2020	Other:
Article: Annex: Clause: 4.	7.1.2.2	
Key words:		
Strength/slippage time		
Question: For what duration should the 890N load be held during the Strength/Slippage test	given in Clause 4.7.1.2.2 in Table	e 9?
Solution:		
The 890N load shall be held for 5 minutes.		



PPE-R/08.060
Version 00

RECOMMENDATION FOR USE

Number of pages: 1			Approval stage :	Approved on :		
Origin : VG8			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	31/08/2023 07/12/2023 26/05/2024		
Question related to PPE Regulation PPE Guidelines		 ☑ EN/prEN: EN 13138-1:2021 Clause 8.2 EN 13138-3:2021 Clause 5.8 		☐ Other:		
Article:	Annex:	Clause:				
Key words:						
Human Subject tes	ting; Manikin testing					
Question:						
swim aids. The use	nikins in EN 13138:2021 series of standards re of Infants and Children human test subjects is N ISO 12402:2020 series of standards, in which	still permitted	for human subject testing for B			
Is it possible to con	it possible to conduct the In-Water testing prescribed in Clauses 8.2 of FN 13138-1:2021 and Clause 5.8 of FN 13138-3:2021 using					

Solution:

Human Subjects rather than the prescribed Manikins in Annex B?

If so, what is the selection criteria for Human Subjects?

Yes, human subjects may be used in lieu of manikins for the testing prescribed in EN 13138:2021. The testing is to be conducted under strict supervision of lifeguards and parents and appropriate allowances in the testing made to keep the subject safe.

The user mass of the manikins for the relevant age groups stated in EN 13138-1:2021 & EN 13138-3:2021 shall be used for test subject selection criteria with a minimum of one test subject tested in each size criteria appropriate to the swim aid as follows:

EN 13138-1:2021 Table 4			EN 13138-3:2021 Table 1			
Age years	User Mass Range (kg)	Human Subjects to be tested	Age years	User Mass	Human Subjects to be tested	
≤1	≤ 11	One subject ≤11kg	≤1	≤ 11kg	One subject ≤11kg	
1 to 2	> 11 - 15	One subject >11-15kg	> 1 to 2	> 11kg to 15kg	One subject >11-15kg	
2 to 3	> 15 - 19	One subject >15-19kg	> 2 to 3	> 15kg to 19 kg	One subject >15-19kg	
3 to 6	19 - 30	One subject at the low end >19-25kg One subject at the high end >25-30kg				
6 to 12	30 - 60	One subject at the low end >30-40kg One subject at the high end >50-60kg				
>12	60 - 80	One subject at the low end >60-70kg One subject at the high end >70-80kg				



Version 00

Number of pages: 1			Approval stage :	Approved on :
Origin : VG8			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	31/08/2023 07/12/2023 26/05/2024
Question related to		⊠ EN/prE	EN: EN ISO 12402-9:2020	Other:
Article:	Annex:	Clause: 5.5	5.11	
Key words:				
Uninflated Buoyancy	Test			
Question:				
	d buoyancy test in clause 5.5.11 of EN ISO 124 ents of EN ISO 12402:2020 Parts 2-5?	02-9:2020 be	e applied for automatically inflate	able PFDs when assessing
Solution:				
No.				
The uninflated buoya only and/or oral only	ancy test is not applicable for fully automatic PF inflation system.	Ds. It is only	applicable for inflatable PFDs the	hat incorporate a manual

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 9 "Protective Clothing for Motorcycle Riders and Sports Impact Protectors" of the European Coordination of Notified Bodies in the field of Personal Protective Equipment (PPE)

Regulation (EU) 2016/425

Number of RfU	Version	Reference	Keywords	Approved by Vertical	Approved by Horizontal	Endorsed by PPE Working
PPE-R/				Group 9	Committee	Group
09.002	01	EN 1621-2:2014	Motorcyclists back protector sizing intervals	21/04/18	21/04/18	22/04/19
09.004	01	EN 14021:2003 & EN 1621- 1:2012	Elbow protectors in addition to stone shields for motorcycle riders	21/04/18	21/04/18	22/04/19
09.005	01	EN 1621-1:2012 & EN 1621- 2:2014	Impact protectors for use in motorcycling AND skiing	21/04/18	21/04/18	22/04/19
09.009	01	EN 1621-1:2012 & EN 1621- 2:2014	Wet impact test after hydrolytic	21/04/18	21/04/18	22/04/19
<u>09.010</u>	01	EN 16027:2011	Protective Goal Keepers Gloves, Impact Strength	21/04/18	21/04/18	22/04/19
09.012	01	EN 1621-1:2012	Information by the manufacturer	21/04/18	21/04/18	22/04/19
09.013	01	EN 13594:2015	Tear Testing, Determination of Pass / Fail, Protective Overlays	21/04/18	21/04/18	22/04/19

Status: April 2019



PPE-R/0	9.002
Version	1

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 9)		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 22.04.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: 1621-2: 2014	Other:
Article:	Annex: II	Clause: 4.6	 6 Sizing	
Key words:				
Motorcyclists back prote	ector sizing intervals			
O				
Question:	4.0.0' '			26.1
5cm."	e 4.6 Sizing, states "The waist to shoulder len	igtn, expres	sed in centimetres shall be spec	cified as a range up to max.
	cm range be the number of centimetres betw cm include both the maximum and minimum v			ned (e.g 45 – 50cm) OR
Solution:				
would be considered ac However, if no 'overlap'	on 'overlap' in the sizing across the range of a exceptable for the 5cm range to be the number in values is present or only a single size of p should include both the minimum and maximum	of centimet rotector is a	res between the maximum and vailable, (for example Size S =	minimum value claimed.



PPE-R/09.004 Version 1

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 9	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 22.04.2019
Question related to PPE Regulation Self-PPE Regulation PPE Regulation PPE Regulation 1621-1: 20	EN: EN 14021: 2003 & EN 012	☐ Other:
Article: Annex: Clause:		
Key words: Elbow protectors in addition to stone shields for motorcycle riders		
Question: EN 14021: 2003 (stone shields) further to chest protectors covers also shoulder offered to the market with elbow protectors connected to it.		sometimes, this device is
Which standard has to be referred to when it comes to type approval and certific	ation?	
Solution: The additional elbow protectors have to comply with the requirements of their de	edicated standard EN 1621-1: 20	012



PPE-R/09.005
Version 1

Number of pages: 1	er of pages: 1 Approval stage : Approved on :			
Origin : Vertical Group 9 / Ricotest	rigin : Vertical Group 9 / Ricotest		21.04.2018	
Question related to PPE Regularies Protectors		N/prEN: EN 1621-1: 2012 & 621-2: 2014	Other:	
Article: Annex	c: Claus	5e:		
Key words: Impact protectors for use in motorcycli	ng AND skiing			
Question: Considering that no dedicated harmon back & limb protectors intended not or			ports: How to test and certify	
Solution: Testing: The protector must completely satisfy the relevant EN 1621 testing requirem "- 20°C" and not "- 10°C" should also testing shall be done at lab conditions	ents being obtained for the mandator be carried out. The duration of the co	ry ambient and wet impact conditions anditioning at -20°C shall be a minim	s, additional impact testing at	
Certification:		T		
A common certification for use in motor. The overall classification level claimed assessment.				



PPE-R/09.009 Version 1

Number of pages: 1	Approval stage : Approved on :
Origin : CEN/TC 162/WG 9 Meeting 04/06/2013	 ✓ Vertical Group ✓ Horizontal Committee ✓ EU PPE Working Group ✓ 21.04.2018 ✓ 22.04.2019
	☐ EN/prEN: EN 1621-1:2012 & EN ☐ Other:
Wet Impact Test After Hydrolytic Ageing	521-2:2014
	ause: EN 1621-1 clause 6.3.4.3 &
E	N 1621-2 clause 5.1.6.2
Key words:	
Wet impact test after hydrolytic	
Question: How should the sample be stored in the sealed bag according to 1621-	I clause 6.3.4.3 and 1621-2 clause 5.1.6.2?
Solution: The sample should be stored to allow water to drop out within the seale	d han



PPE-R/09.010)
Version 1	

Number of pages: 1	Approval stage : Approved on :			
Origin : SATRA (UK)	Drigin : SATRA (UK) ☑ Vertical Group		21.04.2018	
			∀ertical Group Horizontal Committee	21.04.2018
			□ EU PPE Working Group	22.04.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: EN 16027: 2011	Other:
Impact Testing				
Article:	Annex:	Clause: 5.6	S Impact Strength	
Key words:				
Protective Goal Keeper	rs Gloves, Impact Strength			
Question:				
The standard EN 1602 clause 5.6.2.	7: 2011 details the test apparatus required for	Impact Stre	ngth testing in 5.6.1 and the pro	ocedure for this test in
	details the impact energy that should be used use 5.6.2), specify the weight of the carriage w			of apparatus (clause 5.6.1)
	weight carriage to carry out this test, providing specified in the standard?	g that the c	orrect drop height has been cal	culated prior to testing to
Solution:				
No. A heavy mass fallir	ng a short distance may not produce the same	effect as a	small mass falling from a greate	er height.
A carriage weight of 2.5	5 kg should be used.			



PPE-R/09.012 Version 1

Number	of pages: 1	Approval stage :	Approved on :	
Origin : \	/ertical Group 9	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 22.04.2019	
Question	estion related to PPE Regulation			
User Info	ormation			
Article:	Annex: Claus	se: 8		
Key word	ds:			
Informati	on by the manufacturer			
Question The instr	n: ruction for use shall contain according to clause 8.e.2 the performa	nce of impact attenuation:		
1)	Is it sufficient if at least the highest (poorest) result according to c mentioned?	clause 6.3.4 (ambient, wet, high and	ow temperature test) is	
2)	Instead of the exact recorded value obtained during type approva minimum requirement value given by the standard for the claimed		rer states at least the	
Solution:				
1)	Yes, because this value (e.g. mean value for wet test) determines	s the performance level in the markir	ng.	
	More results can be given if desired by the manufacturer.			
2)	No. This would not be acceptable.			



PPE-R/09.013	3
Version 1	

Number	Number of pages: 1		Approval stage :	Approved on :	
Origin : \	rigin : Vertical Group 9 ☑ Vertical Group 21.04.2018 ☑ Horizontal Committee 21.04.2018 ☑ EU PPE Working Group 22.04.2019		21.04.2018		
Question	ion related to PPE Regulation				
Tear Str	rength				
Article:	Annex:	Clause: 4.6	5		
Key word	ds:				
Tear Tes	sting, Determination of Pass / Fail, Protective Overlays				
Question	1:				
	14: 2015 requires 3 samples of each material type used in the st piece shall comply with the performance requirements.	e protective	layer to be tested for tear, and	that the lowest result on a	
1)	The current wording suggests that each material type / lay- individually. Is this correct?	er of materia	als that forms the protective layer	er must be tested	
2)	The current wording suggests that each individual material requirements of EN 13594: 2015. Is this correct?	I type / layer	of materials that forms the prote	ective layer must meet the	
3)	If protective overlay patches are present on the palm and blevel according to EN 13594: 2015	back of the h	and, how should one test and ϵ	evaluate the tear resistance	
Solution:					
the mate	ach of the three samples required for tear testing shall be tal rials found within the protective layer, and all layers are to b performance requirements.				
	tes where reinforcement and / or protective overlay patches e considered.	are present,	the results obtained on the wea	akest parts of the structure	

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 10 "Foot and Leg Protection" of the European Coordination of Notified Bodies in the field of Personal Protective Equipment (PPE)

Regulation (EU) 2016/425

Number	Version	Reference	Keywords	Approved by	Approved by	Endorsed by
of RfU	VEISIOII	Kelefelice	Reywords	Vertical	Horizontal	PPE Working
PPE-R/				Group 10	Committee	Group
10.001	01	EN ISO 20345:	Obsolescence	21-4-2018	21-4-2018	29-11-2019
10.001		2011, EN ISO	Obsolescence	21 4 2010	21 4 2010	25 11 2015
		20346: 2014 and				
		EN ISO 20347:				
		2012				
10.003	01	EN ISO 20345:	Outsole without continuity	21-4-2018	21-4-2018	07-02-2020
		2011, EN ISO				
		20346: 2014 and EN ISO 20347:				
		2012				
10.004	01	EN 15090: 2012	Insulation against heat,	21-4-2018	21-4-2018	29-11-2019
<u></u>			assessment, deformation			
10.005	01	EN ISO	Synthetic upper materials on	21-4-2018	21-4-2018	29-11-2019
		20345:2011, EN	classification I footwear			
		ISO 20346:2014,				
		EN ISO 20347: 2012				
10.006	01	EN 13287:2012	Slip resistance, curved	21-4-2018	21-4-2018	29-11-2019
10.000		211 1020112012	outsoles		2 20.0	
10.007	01	EN ISO 20347:	Water resistance test	21-4-2018	21-4-2018	29-11-2019
		2012	duration			
<u>10.008</u>	01	EN ISO 20344:	Key words: Penetration	21-4-2018	21-4-2018	29-11-2019
		2011	resistant inserts dimensions,			
10.009	01		coverage area Innocuousness AZO Dyes	21-4-2018	21-4-2018	29-11-2019
10.011	01	EN ISO 20344:	Water absorption /	21-4-2018	21-4-2018	29-11-2019
		2011	desorption, cotton gauze			
10.012	01	EN ISO 20344:	Water resistance, insock,	21-4-2018	21-4-2018	29-11-2019
		2011	water detection			
<u>10.014</u>	01	EN ISO 20347:	Certification, vamp lining	21-4-2018	21-4-2018	29-11-2019
10.015	01	2012 EN ISO 13287:	mandatory Clip registeres	21-4-2018	21-4-2018	29-11-2019
<u>10.015</u>	01	2012	Slip resistance	21-4-2016	21-4-2016	29-11-2019
10.017	01	2012	Overshoe, slip resistance	21-4-2018	21-4-2018	29-11-2019
10.018	01	EN ISO	Ankle Protection , how many	21-4-2018	21-4-2018	29-11-2019
		20345:2011 cl.	areas per shoe			
		6.2.7				
40.040	0.4	EN13634:2010		04.4.0040	24 4 22 4 2	00.44.0040
10.019	01		Orthopedic changes on	21-4-2018	21-4-2018	29-11-2019
			safety and occupational footwear			
10.020	01	EN ISO 20345:	Water vapour permeability	21-4-2018	21-4-2018	29-11-2019
		2011 and EN	(WVP), quarter lining			
		ISO 20347: 2012				
10.021	01	EN ISO	Outsole cracking	21-4-2018	21-4-2018	29-11-2019
10.001	0.1	20344:2011		24 4 22 42		00.44.0040
10.024	01	EN ISO 13287:	Penetration resistance, slip	21-4-2018	21-4-2018	29-11-2019
10.025	01	2012 EN ISO 20346:	resistance	21-4-2018	21-4-2018	29-11-2019
10.023		2014		21-4-2010	21-4-2010	29-11-2019
10.026	01	EN 13832-1:	Stocking, degradation test	21-4-2018	21-4-2018	29-11-2019
	1	1	J, J	1		

Number of RfU PPE-R/	Version	Reference	Keywords	Approved by Vertical Group 10	Approved by Horizontal Committee	Endorsed by PPE Working Group
		2006				
10.027	01	EN ISO 20345:2011 (EN ISO 20346: 2014)	Toe cap, cracks	21-4-2018	21-4-2018	29-11-2019
10.028	01	EN ISO	Water absorption /	21-4-2018	21-4-2018	29-11-2019
10.029	01	20345:2011 EN ISO 20345: 2011, EN ISO 20346: 2014 and EN ISO 20347: 2012	desorption Open heel region	21-4-2018	21-4-2018	29-11-2019
10.030	01		Overshoes without heel section – slip resistance	21-4-2018	21-4-2018	29-11-2019
10.031	01		Certification of a sandal	21-4-2018	21-4-2018	29-11-2019
10.032	01	EN 15090: 2012	Insulation against heat, sandbath	21-4-2018	21-4-2018	29-11-2019
10.045	01	EN ISO 20345:2011/EN 15090:2012	Heel shape	21-4-2018	21-4-2018	07-02-2020
10.046	01		Gaiter	21-4-2018	21-4-2018	07-02-2020
10.049	01	EN ISO 20345:2011; EN ISO 20346:2014; EN ISO 20347:12	Upper Overlay	21-4-2018	21-4-2018	07-02-2020
10.050	01	EN ISO 20344:2011; EN ISO 20345:2011; EN ISO 20346:2014; EN ISO 20347:12	Slip resistance & non- cleated outsoles	21-4-2018	21-4-2018	07-02-2020
10.051	01	EN ISO 20345:2011; EN ISO 20346:2014; EN ISO 20347:12	Instructions for use/Limitations of use	21-4-2018	21-4-2018	07-02-2020
10.052	01		Sole design	21-4-2018	21-4-2018	07-02-2020
10.054	01		Samples / specimen numbers	21-4-2018	21-4-2018	07-02-2020
10.055	01		One model and different protecting components	21-4-2018	21-4-2018	07-02-2020
10.056	01		Sock lining, insole abrasion	21-4-2018	21-4-2018	07-02-2020



PPE-R/10.001
Version 01

RECOMMENDAT				
Number of pages: 1	Approval stage :	Approved on :		
Origin : France	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019		
·	☑ EN/prEN: EN ISO 20345: 2011, EN ISO 20346: 2014 and EN ISO 20347: 2012	Other:		
Article: Annex:	Clause: 8			
Key words: Obsolescence				
Question: In the standards EN ISO 20345: 2011, EN ISO 20346: 2014 and EN ISO 20347: 2012 clause 8.1 it is written: "Safety footwear shall be supplied to the customer with information written at least in the official language(s) of the state of destination. All information shall be unambiguous. The following information shall be given: 7) obsolescence deadline or period of obsolescence." 7) obsolescence deadline or period of obsolescence is difficult to assess by the manufacturer. It is possible to give a limit when the products are stored by the manufacturer himself because he knows the conditions. But, when the products are stored by a retailer or the customer, it is very difficult to give figures. The problem is more critical with polymeric boots (PU, due to hydrolysis) French manufacturers try to define this limit period but they have had information from Italy that it is possible to avoid to answer to this point of the standard with a sentence like: "Due to several factors, humidity, changes in the materials in the time, it is not possible to give a date of obsolescence." This sentence is not conform to the standard, but conform to the regulation. Does that mean that CE marking is possible but reference to the standard impossible? Solution: To avoid inconsistent information, VG 10 proposes to give the following text to help the person that puts the product on the market: "When stored under normal conditions (light, temperature, and relative humidity), the obsolescence date of a footwear is generally: 10 years after the date of manufacturing for shoes with upper leather, rubber and thermoplastic materials (such as SEBS etc) and EVA 5 years after the date of manufacturing for shoes including PVC 3 years after the date of manufacturing for shoes including PU However, these durations are medium values. It is the responsibility of the manufacturer can provide supporting evidence (tests, experience).				



PPE-R/10.003
Version 01

RECOMMENDATION FOR USE				
Number of pages: 1		Approval stage :	Approved on :	
Origin: INESCOP / CTC		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21-04-2018 15-09-2019 07-02-2020	
Question related to PPE F	Regulation PPE Guidelines	☑ EN/prEN: EN ISO 20345: 2011, EN ISO 20346: 2014 and EN ISO 20347: 2012	☐ Other:	
Article:	Annex:	Clause:		
Key words: Outsole without co	ntinuity			
Question:				
How should footwear with outsoles consisting of several different materials be assessed when testing to EN ISO 20345: 2011, EN ISO 20346: 2014 and EN ISO 20347: 2012? This may be footwear with one outsole material type covering the forepart, another covering the heel and a different material (such as a cellular material from the midsole) in the waist area. Alternatively, it could be a more intricate outsole design such as shown in the picture below				
area or other areas not in requirements when this is materials that are not tou	n direct contact with the ground) is claimed. For all other outsole	the visible outsole materials (inclusion comply with the resistance to fuel requirements these shall only be to imen can be obtained from the foolder rung shall be fully tested)	oil outsole ested on visible	



PPE-R/10.004 Version 01

Number of pages: 1	Approval stage :	Approved on :		
Origin: INESCOP		21.04.2018		
		ee 21.04.2018		
	⊠ EU PPE Working Gi			
Question related to PPE Regulation	⊠ EN/prEN: EN 15090: 2012	☐ Other:		
Article: Annex:	Clause:			
Key words:				
Insulation against heat, assessment, deformation				
Question:				
Sometimes during the test the outsole swells significantly modifying t are two possibilities:	he area in contact with the hot plate.	When the test is finished there		
 When the outsole cools down the swelling disappears. 				
 When the outsole cools down the swelling remains there, but 	maybe reduced.			
The question is how to assess the test itself - The swelling impedes the normal contact (heat transfer) between the plate and the footwear so is swelling acceptable whilst in the sandbath?				
Also are signs of melting acceptable?				
Solution:				
If the vertical position of any part of the footwear upper increases by more than 10 mm during the test this is a sign that the contact area with the hotplate could have been affected (reduced) and the footwear will be considered to have failed.				
Alternatively, a frame (or similar mechanism) could be placed over the boot to hold it in place during the test. The frame should not be applying a downward force to the boot at the start of the test but would restrict any upwards movement during the test. This way, any potential "swelling" during testing could be prevented, as well as the resulting loss of contact of the outsole with test surface.				
Either way signs of material melting should be considered as a sign of non-compliance				



PPE-R/10.005 Version 01

Number of pages: 1	Approval stage :	Approved on :	
Origin: CTC	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019	
Question related to PPE Regulation	☑ EN/prEN: EN ISO 20345:2011, EN ISO 20346:2014, EN ISO 20347: 2012	☐ Other:	
Article: Annex:	Clause:		
Key words:			
Synthetic upper materials on classification I footwear			
Question:			
Class I footwear models with synthetic material on upper which are used as decorative component or for design (PU, reflective tape) are widespread. This kind of material is usually used for small surfaces: see orange and black components on pictures for example			
TOM Management of the Control of the			
Regarding to the EN ISO 20345: 2011 sandard (§5.4) these componed coefficient and permeability is not conform because of the component		but the water vapour	
Is it possible to certify these models to EN ISO : 2011 classification I	?		
Solution:			
Certification in class I is possible provided that the overlay component requirements):	its (that do not meet the water vapour coef	ficient and permeability	
1. For Design A - Account for no more than 40% of the whole	area of the upper (excluding the collar) – ${\sf s}$	ee # below	
2. For Designs B, C or D - Account for no more than 10% of the	(oe cap, counter and collar)	
 Always cover an upper material that is fully compliant with I 	EN ISO 20345/6/7		
(Point 3 does not apply to materials covering the toe cap and the cou	nter)		
# For information, note that that in general for design A footwear the total upper area	toe cap and counter areas typically accour	nt for around 30% of the	



PPE-R/10.006 Version 01

Number of pages: 2			Approval stage :	Approved on :
Origin : TUV			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: EN 13287:2012	Other:
Article:	Annex:	Clause:		
Key words:				
Slip resistance, curved	outsoles			
Question:				
How best to carry out s	lip resistance testing of samples with curved of	outsoles?		
Solution				
One possible solution (which is dependent on design of the machine) is to adjust the 7 °angle on the testing device for the heel mode based on this central vertex without using the wedge – see photographs below				







PPE-R/10.007 Version 01

Number of pages: 1		Approval stage :	Approved on :
Origin: TUV / PFI / INESCOP		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to PPE Regulation	⊠ EN/prE	N: EN ISO 20347: 2012	Other:
Article: Annex:	Clause: 6.2	2.5	
Key words:			
Water resistance test duration			
Question:			
It says in clause 6.2.5 of EN ISO 20347: 2012 that the requirement	for Water res	sistance according to EN ISO 20)344, 5,15,2 is 3 cm ² after
15 minutes. But this is different to that stated in EN ISO 20344: 201			, o . 1 , o . 1 o . 2
EN ISO 20344: 2011 Clause 5.15.2.4.8 states 80 minutes			
EN ISO 20344: 2011 Clause 5.15.2.4.6 states 80 minutes EN ISO 20345: 2011 Clause 6.2.5 states 80 minutes			
EN ISO 20347: 2011 Clause 6.2.5 states to minutes			
EN 150 20347 . 2012 Clause 0.2.3 States 13 Hillitates			
With regard to EN ISO 20347: 2012 Clause 6.2.5 what is the recom	mended way	to proceed for notified bodies a	against this background?
Solution:			
Notified bodies should take the 80 minutes, as it says in EN ISO 203	345: 2011.		



3. Three of X and one of Y

CO-ORDINATION OF NOTIFIED BODIES PPE Regulation 2016/425

PPE-R/10.008 Version 01

RECOMMENDATION FOR USE				
Number of pages: 1		Approval stage :	Approved on :	
Origin : CIOP-PIB		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019	
Question related to	☐ PPE Regulation	☑ EN/prEN: EN ISO 20344: 2011	Other:	
Article:	Annex:	Clause: 5.8.1		
Key words: Penetration	on resistant inserts dimensions, cov	verage area		
Question: According to clause. 5.8.1 of EN ISO 20344:2011 "Section the footwear and measure the distances X and Y being the distances between the edge of the insert and the line left by the feather edge of the last" (figure below) The questions are: - 1. In which places shall the footwear be cut? - 2. How many cuts shall be made? - 3. How many measurements of distance X and Y shall be made?				
3 01 01				
Solution:				
It should be noted that the requirement applies to the whole perimeter of the insert but at least the following four points should be checked by cutting into the sample:				
1. The footwea	ar shall be cut at - The heel; The fo	repart; The waist and The toe cap area		
2. Four – pleas	se see answer 1 above			



PPE-R/10.009 Version 01

	RECOMMENDA	ATION FO	K USE	
Number of pages: 1			Approval stage :	Approved on :
Origin : CIOP-PIB			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	☐ EN/prE	N:	Other:
Article:	Annex:	Clause:		
Key words:				
Innocuousness AZO Dye	S .			
Question:				
	otwear should the Notified Body require the ance with the requirements?	test reports	proving that the content of azo	dyes listed in the directive
Solution:				
It should be noted that th likely. However, as a min	e PPE Regulation 2016/425 does not differe imum, all materials present on the inner sur ous substances listed in Annex 17 of REACI	rface of the		



PPE-R/10.01
Version 01

Number of pages: 1		Approval stage :	Approved on :
Origin: INESCOP		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to PPE Regulation	⊠ EN/prEl	N: EN ISO 20344: 2011	Other:
Article: Annex:	Clause: 7.2	.2.2	
Key words:			
Water absorption / desorption, cotton gauze			
Question:			
Notified bodies are experiencing some difficulties in finding a cotton/p standards that use this method (IUP-11 (heavy leather), EN 12746: 2 mention "cotton gauze". However, EN ISO 20344 states that a cotton consisting of cotton and polyamide is required.	000 (insoles	/insocks) and EN ISO 5404 : 2	011(heavy leather)) just
What is the recommended way to proceed for notified bodies against	this backgro	ound?	
Solution:			
The gauze is used to distribute water evenly and its composition is no way.	ot critical. Th	is is why no standard defines t	he gauze in a very precise
Hence use a cotton gauze that is only made of cotton. This should hat the tolerance increased to \pm 10 g/m²) – this is readily available.	ave a mass/	unit area of 60.5 g/m² (as state	ed in the standard but with



PPE-R/10.012 Version 01

Number of pages: 1			Approval stage :	Approved on :
Origin: INESCOP			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	PPE Regulation	⊠ EN/prE	N: EN ISO 20344: 2011	Other:
Article:	Annex:	Clause: 5.	15	
Key words:				
Water resistance, insock, wa	ater detection			
Question:				
	n the footwear incorporates a membrane, but it does not penetrate to the upper sione?			
Solution:				
On finishing the test, the inserequirement.	ock shall be removed to visually inspect	the area for	dampness and determine if the	footwear complies with the



PPE-R/10.014 Version 01

Number of pages: 1			Approval stage :	Approved on :
Origin : Inescop			∨ Vertical Group	21.04.2018
				21.04.2018
			⊠ EU PPE Working Group	29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: EN ISO 20347: 2012	☐ Other:
Article:	Annex:	Clause:		
Vayywarda				
Key words: Certification, vamp lining	na mandatory			
Certification, variip iiiiii	ig manuatory			
Question:				
	it was decided that the vamp lining did not ne	ed to be ma	ndatory, since there was no toe	cap. For that reason in EN
ISO 20347:2004 there			•	
However when revising not fulfilling the require	g the 2004 version there was an "X" for vamp ments for vamp lining.	lining in the	2012 version. As it is now it is n	ot possible to mark 20347
What is the recommen	ded way to proceed for notified bodies agains	t this backgr	ound?	
Calution				
Solution:				
Notified bodies should	consider the "X" to be an "O".			



PPE-R/10.015
Version 01

	I REGOMMENDATIO	ITT OIL COL	
Number	f pages: 1	Approval stage :	Approved on :
Origin : T	C161/WG3	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question	related to PPE Regulation 🖂 🛭	EN/prEN: EN ISO 13287: 2012	☐ Other:
Article:	Annex: Clau	use: 5 & 6 and Figure E.1	
Key word	s:		
Slip resis	ance		
Question			
1.	It has been noted that EN13287 now indicates a requirement of to testing (5.2) and secondly after preparation but before testing deemed unnecessary and excessive if alternate appropriate cor	(7.1.7 re. footwear and 7.2.5 re. floor	
2.	Figure E.1 does not align precisely with the text in E.4.3; the text	t in E.4.3 is correct and the figure sho	uld be amended.
What is t	ne recommended way to proceed for notified bodies against this	background?	
Solution:			
1.	Clauses 7.1.7 and 7.2.5 are identically worded except for the wordended that the wording of these clauses should be inter-		are interchanged. It is
	Condition the <u>item of footwear/floor</u> in accordation footwear/floor will not need to be re-conditioned tests (e.g. different test modes or different surface atmosphere. <u>The footwear/floor however should following preparation</u> .	I following the initial condition es) providing it is not removed	oning (5.2) or between from the standard test
2.	Refer to amended figure below:	3.3	



PPE-R/10.01
Version 01

Number	of pages: 1		Approval stage :	Approved on :
Origin : (CIOP-PIB		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question	related to PPE Regulation	☐ EN/prE	N:	Other:
Article:	Annex:	Clause:		
Key word	ds:			
Oversho	e, slip resistance			
Question): 			
1.	Should electrically insulating overshoes (worn over classic	cal footwear)	meet the requirement for slip re	esistance?
2.	Can an overshoe or overboot be certified to and marked w 2012?	ith EN ISO 2	20345: 2011; EN ISO 20346: 20	14 and EN ISO 20347:
Solution:				
1.	Yes, this type of footwear shall be tested for slip resistance be given to the interaction between the overshoe and the function (innocuousness, ergonomics etc) should be addressed.			
2.	No the scope of the standard does not include this type of overshoe or overboot and the footwear being worn inside. fitting is not addressed by EN ISO 20345/6/7.			



PPE-R/10.018 Version 01

Number o	of pages: 1		Approval stage :	Approved on :
Origin : P	FI		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question	related to PPE Regulation		N: EN ISO 20345:2011 13634:2010	☐ Other:
Article:	Annex:	Clause:		
Key word Ankle Pro	ls: otection , how many areas per shoe			
2.	In EN ISO 20345: 2011 no requirements for the protective In EN ISO 13634: 2010 the picture seems that the area X in the recommended way to proceed for notified bodies agains	is only at the	outer side of the footwear.	
Solution: 1.	It is defined in EN ISO 20344: 2011 Clause 5.17 that both protected and tested.	sides of the a	ankle (ie inner & outer) of each	left & right foot shall be
2.	If ankle protection is claimed, protection must be provided pieces of footwear.	(and tested)	on both the outer and inner sid	e of both left and right



PPE-R/10.019 Version 01

Number of pages: 2			Approval stage :	Approved on :
Origin : TUV			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	☐ EN/prE	N:	Other:
Article:	Annex:	Clause:		
Key words:				
Orthopedic changes on	safety and occupational footwear			
Question:				
With reference to EN IS	SO 20345: 2011 and EN ISO 20347: 2012, wh	nich tests are	e necessary for the assessment	t of orthopedic change?
Solution:				
see annex				



PPE-R/10.020 Version 01

Number of pages: 1	Approval stage :	Approved on :
Origin : IFA-Germany and PZ Haan BG BAU-Germany	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
	N/prEN: EN ISO 20345: 2011 EN ISO 20347: 2012	Other:
Article: Annex: Claus	se:	
Key words:		
Water vapour permeability (WVP), quarter lining		
Question:		
A quarter lining can consist of more than one material; e.g. quarter lining an 20347: 2012 all tests of clauses 5.5.1 up to 5.5.5 are required. Is the test of	nd heel grip. According to EN ISO 20 f WVP (Clause 5.5.3) necessary?	345: 2011 and EN ISO
Solution: The test is considered to have no value (hence unnecessary).		
No test of WVP is required for materials used in the defined counter area:		
Note – Height of defined region to be as given in in the "Design A" column of	of Table 10 in EN ISO 20345: 2011	
happing and read region		
If there is no stiffener or the stiffener is perforated, the material shall comply	y also WVP.	



PPE-R/10.021 Version 01

K	RECON	MMENDATION FOR USE	
Number of pages: 1		Approval stage :	Approved on :
Origin : IFA Germany		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prEN: EN ISO 20344:2011	Other:
Article:	Annex:	Clause:	
Key words:			
Outsole cracking			
Question:			
The figure B.1 in annex	B does not correspond to the title:	outsole cracks	
	corresponding to cleded way to proceed for notified bod	_	
Solution: Follow figure correspon	nding to outsole cracks.		



PPE-R/10.024 Version 01

Number of pages: 1			Approval stage :	Approved on :
Origin : TC161/WG3			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: EN ISO 13287: 2012	Other:
Article:	Annex:	Clause:		
Key words:				
Penetration resistance,	slip resistance			
Question:				
and colour of the wearing	r, slip resistance is dependent on factors suching surface compound. It is considered that this which case what is the best way to clearly define	s information	n may be valuable when analys	sing any future differences in
Solution:				
	rposes only, EN 13287 slip resistance test rep shows the tread design and also colour plus te			
	not a precise measurement when testing foot a should be established. The aim is to assess			
(Note agreed solution d practicality)	loes not list a requirement to include the dens	sity of the ou	utsole as it is a destructive test a	and for other reasons of



PPE-R/10.025 Version 01

Number of pages: 3			Approval stage :	Approved on :
Origin : PFI			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: EN ISO 20346: 2014	Other:
Article:	Annex:	Clause:		
Key words:				
Question:				
A number of editing err	ors have been detected in EN ISO 20346:201	4.		
What is the recommend	ded way to proceed for notified bodies against	this backgr	ound?	
Solution:				
	following proposals for the editorial changes.			



PPE-R/10.026 Version 01

Number of pages: 1	Approval stage :	Approved on :
Origin: CTC	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to PPE Regulation	EN: EN 13832-1: 2006	Other:
Article: Annex: Clause:		
Key words:		
Stocking, degradation test		
Question:		
In clause 4.2.3 of EN 13832-1: 2006 - footwear protecting against chemicals - degradation test that states "the lining shall be removed"	there is a procedure for the prep	aration of samples for
Standard EN ISO 20345 : 2011, table 2, includes a note to say that the "stocking considered as a lining"	g covering the last before the mo	oulding process is not
Below is a picture of a cross section of polymeric footwear with a stocking So lining and be removed before testing or should it be left in place for the degrada		cking be considered as a
Polymeric material		
Stocking		
Solution:		
If the removal of the stocking damages the sample, it is recommend to test the removed without damaging the sample then this should be done.	full complex including the stockir	ng but if the stocking can be



PPE-R/10.02	7
Version 01	

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Number	of pages: 1			Approval stage :	Approved on :
Origin : F	PFI			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question	related to	☐ PPE Regulation		N: EN ISO 20345:2011 0346: 2014)	Other:
Article:		Annex:	Clause:		
Key word	ds:				
Toe cap,	cracks				
Question	1:				
"In additi	on, the toe cap	0345:2011 clause 5.3.2.3 includes the follo shall not develop any cracks which go thr ia is not included in Clause 5.3.2.4 for asso	ough the mate	rial, i.e. through which light can	be seen." However, the
During fo	ootwear testing	68: 2010 clauses 4.2.4, 4.2.4 and 4.4 the to EN ISO 20345: 2011 clauses 5.3.2.3 ar injurious surfaces produced – Should the	nd 5.3.2.4 shar		
Solution:					
1)		ng compression testing of footwear to EN I dition, the toe cap shall not develop any c			
2)		o testing in accordance with EN ISO 20345 damaged in such a way that it could pote			



PPE-R/10.028 Version 01

Number of pages: 1	Approval stage :	Approved on :
Origin: CTC	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to PPE Regulation	EN/prEN: EN ISO 20345:2011	Other:
Article: Annex: Cla	ause:	
Key words:		
Water absorption / desorption		
Question: In an item of safety footwear manufactured with a full lining, which cover material is placed between the insock and insole as a full sock as is som with a full insock, removable and water permeable, as defined in table 3 - Perform the water absorption / desorption on insole only - Perform the water absorption / desorption on this "lining" materials Perform the water absorption / desorption on both insole and "	netimes found on firefighters footwear), of EN ISO 20345 : 2011, which testing rial	if this lining material is used
Solution: If the insock includes an impermeable membrane, water absorption / desthe lining does not include an impermeable membrane, the test piece sh		



PPE-R/10.029 Version 01

~ * *	RECOMMENDATION FOR USE			
Number of pages: 1		Approval stage :	Approved on :	
Origin : PFI		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019	
Question related to	☐ PPE Regulation	☑ EN/prEN: EN ISO 20345: 2011, EN ISO 20346: 2014 and EN ISO 20347: 2012	Other:	
Article:	Annex:	Clause:		
Key words:				
Open heel region				
Question:				
Question: According to EN ISO 20345: 2011, EN ISO 20346: 2014 and EN ISO 20347: 2012 an open heel region is allowed with design A footwear. However shoes with an open heel region may not fit the feet correctly so could easily be lost during the walking movement. This is especially critical for ergonomic features and for slip resistance meaning BHSR 1.1.1 and 1.3.1 may only be partly fulfilled, if there is no feature to hold the footwear on the feet. What could be done to address this concern?				
Solution:				
	resent that can be moved – for instance onto the wearer to configure the strap round the ba		nall be included in the user	
When a heel strap is p			nall be included in the us	



PPE-R/10.030
Version 01

Number of pages: 1			App	oroval stage :	Approved on :
Origin : SATRA			\boxtimes	Vertical Group Horizontal Committee EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	☐ EN/prE	N:		Other:
Article:	Annex:	Clause:			
Key words:					
Overshoes without hee	el section – slip resistance				
Question:					
0 0					
If an overshoe such as	shown above is designed (and claims) to	provide only toe	pro	tection can it be certified?	
•	cause the overshoe does not cover the co ess as it will depend on the footwear being	•		ce assessment of slip resis	tance (particularly in the
Solution:					
Note when evaluating i equivalent to the maxin with a recommended it information shall include	sidered to be PPE and can be certified to nternal clearance it will be necessary to to num recommended by the overshoe manuem of footwear), corrosion resistance (whele warnings explaining that the product do resistance is required.	est the overshoe ufacturer. Other ere relevant) and	with prop d str	an item of footwear with a erties such as ergonomics ength of the strap shall also	n outsole thickness (when worn in combination be considered. The user



PPE-R/10.031 Version 01

Number of pages: 1			Approval stage :	Approved on :
Origin : Intertek			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	☐ EN/prE	N:	Other:
Article:	Annex:	Clause:		
Key words:				
Certification of a sanda				
Question:				
Could this sandal be ce	rtified to EN ISO 20347:2012?			
Solution:				
Yes, provided the footw	rear meets the claimed requirements. Hence it	not S1 or O	1 because the seat region is not	closed



PPE-R/10.032 Version 01

Approval stage :	Approved on :
✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
☑ EN/prEN: EN 15090: 2012	Other:
Clause:	
ial was noticed during the 45 minute of tesperved at certain locations on the sole. The water to extinguish it. How should this be o	nere was continuous and
n and the flame test criterion should also b	ne applied (EN 15090:2012,
	Vertical Group Horizontal Committee EU PPE Working Group EN/prEN: EN 15090: 2012 Clause: ial was noticed during the 45 minute of tesperved at certain locations on the sole. The water to extinguish it. How should this be conserved.



PE-R/	10.045
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Version 1

RECOMMENDATION FO)R	USE
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Number of pages: 1	Approval stage :	Approved on :		
Origin: RICOTEST	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	18-12-2002 15-09-2019 07-02-2020		
	:N: EN ISO 1/EN 15090:2012	☐ Other:		
Article: Annex: Clause: 5.8	8.1.3 (EN ISO 20345); 6.7.1 (EN	N 15090)		
Key words: Heel shape				
Question: EN ISO 20345:2011, 5.8.1.3 specifies the depth of the sole cleats. EN 15090:2012, 6.7.1 states that "there are no continuous linear transverse valleys across the sole. In some cases, the back part of the sole in the heel area is not flat and it is constituted of small linear cleats (see figure hereunder) This heel shape should not be excluded because it can improve the footwear properties (for instance the slip resistance)				
		,		
Solution: The requirement of EN ISO 20345:2011, 5.8.1.3 (the depth of the sole cleats) an valley across the sole) do not apply to any inclined area at the back part of the head of the back part of the head of the sole cleats.				



PPE-R/10.046

Version 1

DECOMMENDATION FOR I	IOF
RECOMMENDATION FOR U	JOE

Number of pages: 1	Approval stage :	Approved on :
Origin: BG 24 D. Opara	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	18-12-2002 15-09-2019 07-02-2020
Question related to PPE Regulation PPE Guidelines	EN/prEN:	☐ Other:
Article: Annex: CI	ause:	
Key words: Gaiter		
•		
Question:		
Which are the general requirements to certify gaiters?		
Solution:		
The gaiter shall be tested according to the test methods that would be u	sed to test the footwear against the sam	ne risk
The galler shall be tested according to the test methods that would be a	sed to test the lootwear against the sair	ic flor.
The technical file shall take into account the essential requirement of the	e Regulation (EU) 2016/425 (e.g. sizing,	innocuousness).
Without these 2 assessments certification is impossible.		,
The EU type examination certificate is given on the basis of the Regulati	ion.	



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		_	11	-	v.	υ-	Гυ

Version 1

Number of pages: 1	Approval stage :	Approved on :
Origin: CTC	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	10-02-2005 15-09-2019 07-02-2020
	EN: EN ISO 20345:2011; 0346:2014; EN ISO	Other:
Article: Annex: Clause: 5	.4	
Key words: Upper Overlay		
Question:		
In the context of this question, an "overlay material" is a component of the footw second (underlying) material that fully complies with the requirements of EN ISC		areas where there is a
Question:		
What testing should be carried out on an "overlay material"?		
Solution: Overlay materials above the height defined in EN ISO 20345:2011, Table 10 –	As they are not an insert no test	ing is required.
Overlay materials below the height defined in EN ISO 20345:2011, Table 10, the Upper, all requirements of EN 20345:2011/20346:2014/20347:2012 a Upper plus overlay material Water Vapour Permeability and coefficients.	re applicable	



PPE-R/10.050

Version 1

Number of pages: 1	Approval stage :	Approved on :
Origin: INESCOP	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	24-03-2006 15-09-2019 07-02-2020
	EN/prEN: EN ISO 20344:2011; N ISO 20345:2011; EN ISO 1346:2014; EN ISO 20347:12	☐ Other:
Article: Annex: Cla	ause: 5.8.1	
Key words: Slip resistance & non-cleated outsoles		
Question: EN ISO 20345:2011, EN ISO 20346:2014 and EN ISO 20347:20125.8.1 2, 5 mm are regarded as uncleated. This could be not sufficient, because the height could be only 0,5 mm an significantly.		-
Solution: In this case it was agreed that it was particularly important for the user in resistance and to include a warning for the user to examine the cleats be		of worn cleats on slip



PPE-R/10.051

Version 1

RECOMMENDA	TION FOR USE
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Number of pages: 1	Approval stage :	Approved on :
Origin: BGBAU	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	24-03-2006 15-09-2019 07-02-2020
	N/prEN: EN ISO 20345:2011; SO 20346:2014; EN ISO 7:12	Other:
Article: Annex: Claus	se: 8.1	
Key words: Instructions for use/Limitations of use		
Question: The instructions for use shall give information about all limitations of use (El difficult to give all limitations of use. What is acceptable to N.B s?	N ISO 20345:2011 Clause 8.1 e). Fo	or the manufacturer it is very
For instance a "winter boot" certified to EN ISO 20345 with no testing for slip User Information had been considered as unacceptable.	p resistance on ice and no mention o	of this lack of testing in the
Solution: The only solution provided was to make sure that all testing/protection is ful statement. "This PPE has only been tested against the hazards identified by hazards, please contact the manufacturer".		



PPE-R/10.052

Version 1

Number of pages: 1	Approval stage :	Approved on :
Origin: CTC	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	16-03-2007 15-09-2019 07-02-2020
Question related to PPE Regulation PPE Guidelines EN/pr	EN:	Other:
Article: Annex: Clause:		
Key words: Sole design		
Question:		
A boot manufacturer send us 3 sizes for the CE marking of a product but one of	f the sizes has a different outsole	e design.
He explains that the 3 shapes of sole have an equivalent philosophy. He wants	to have one certificate for the pr	oduct.
Is it acceptable?		
Solution: These products must be on two certificates (one for each outsole mould design Each certificate to be supported by its own set of tests based on that particular	•	



PPE-R/10.054

Version 01

RECOMMENDA	TION FOR USE
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Number of pages: 1	Approval stage :	Approved on :
Origin: SATRA	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	15-09-2019 07-02-2020
Question related to PPE Regulation PPE Guidelines	EN/prEN:	☐ Other:
Article: Annex: Clau	use:	
Key words:		
Samples / specimen numbers		
Question: What should be done where the number of samples specified in EN ISO 2 e.g. Tear test on upper materials. EN ISO 20344:2011. 1 sample from each of 3 sizes. Number of test piece EN ISO 3377-2:2002 (for leather). 6 test pieces, 3 along & 3 across EN ISO 4674-1:2003 method B (for coated fabric & textile). 10 test pieces	es from each sample = 3	ified in the test method.
Solution:		
In cases of conflict, the requirements of EN ISO 20344: 2011 should be for (Where possible testing in both perpendicular directions)	bllowed	



PPE-R/10.055 Version 01

Number of pages: 1	Approval stage :	Approved on :
Origin: INESCOP	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	15-09-2019 07-02-2020
Question related to PPE Regulation PPE Guidelines	☐ EN/prEN:	Other:
Article: Annex:	Clause:	
Key words: One model and different protecting components		
Question: We have sometimes allowed use of two different steel toecaps, very sand the corrosion in both of them and that was all.	similar but different make. We have tested	the model with both toecaps
But now a manufacturer wants to have in a single model the possibilit course all possibilities shall be tested, but, is it possible to call it a single		etal and textile inserts. Of
Solution:		
When the safety components are from different materials that have dimodels with different product names so that they can be differentiated		ve to be treated as different



PPE-R/10.056 Version 01

Number of pages: 1	Approval stage :	Approved on :
Origin: INESCOP	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	15-09-2019 07-02-2020
Question related to PPE Regulation PPE Guidelines EN/prl	EN:	Other:
Article: Annex: Clause:		
Key words: Sock lining, insole abrasion		
Question:		
The abrasion resistance of the insole must be carried out according to EN ISO 2 an inner sock lining covering also the insole that method seems to be meaningle for linings and insocks, is potentially more suitable.		
Solution:		
When footwear has an inner sock lining it is enough to carry out the abrasion re 2011 clause 6.12 and it is unnecessary to carry out the insole abrasion test account to the insole account to the		o EN ISO 20344:

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 11 "Protection against Falls from a Height" of the European Coordination of Notified Bodies in the field of Personal Protective Equipment (PPE)

Regulation (EU) 2016/425

Number of RfU	Version	Reference	Keywords	Approved by Vertical	Approved by Horizontal	Endorsed by PPE Working
PPE-R/				Group 11	Committee	Group
11.004	02	EN 364:1992	Length of the test lanyard	21.04.2018	21.04.2018	22.04.2019
11.004	02	EN 304.1992	EU type examined	21.04.2018	21.04.2018	22.04.2019
11.000			equipment; minor variations, additional testing / verification		21.04.2016	
11.007	02		EU type examined equipment; medium variations; verification; reexamination	21.04.2018	21.04.2018	22.04.2019
11.008	02		EU type examined equipment; essential variations; specific or partial tests	21.04.2018	21.04.2018	22.04.2019
11.009	02		EU type examined equipment; essential variations; EU type examination	21.04.2018	21.04.2018	22.04.2019
11.019	02	EN 364:1992	Energy absorber; chain test lanyard	21.04.2018	21.04.2018	22.04.2019
11.023	02	All EN/prEN	Static testing; stressing rate	21.04.2018	21.04.2018	22.04.2019
11.024	02	EN 364:1992	Dynamic force measurement; filter characteristic	21.04.2018	21.04.2018	22.04.2019
<u>11.031</u>	01		Canyoning; caving	21.04.2018	27.12.2018	29.11.2019
11.034	02	EN 353-2 :2002	Fall protection system; special use	21.04.2018	21.04.2018	22.04.2019
11.037	02	EN1891:1998, EN 364:1992	Low stretch kernmantel rope - drop machine	21.04.2018	21.04.2018	22.04.2019
11.040	02		Date of manufacture, marking, ageing	23.11.2022	31.05.2023	31.01.2024
11.041	02	EN 795:2012 - type B	Vacuum, magnetic, anchor device	07.06.2021	01.10.2021	18.11.2022
11.042	01	EN 353-2:2002	Guided Type Fall Arrester - Incorrect attachment and use	21.04.2018	21.04.2018	29.11.2019
11.043	02	EN 361:2002, EN 358:1999	Back support; full body harness; waist belt; work positioning elements	21.04.2018	21.04.2018	22.04.2019
11.049	02	EN 1891:1998	Low stretch kernmantel ropes; diameter	21.04.2018	21.04.2018	22.04.2019
11.050	02	EN 353-2:2002	Guided type fall arrester including a flexible anchor line; static strength	21.04.2018	21.04.2018	22.04.2019
11.051	02	All EN for PPE against fall from a height with load bearing textile element	Load bearing textile materials	07.06.2021	01.10.2021	18.11.2022
11.053	02	EN 361:2002	Full body harness: front loops	21.04.2018	21.04.2018	22.04.2019
<u>11.057</u>	02	EN 361:2002	Marking of fall arrest	21.04.2018	21.04.2018	22.04.2019

Status: September 2024

Number of RfU	Version	Reference	Keywords	Approved by Vertical	Approved by Horizontal	Endorsed by PPE Working
PPE-R/				Group 11	Committee	Group
			attachment points on EN 361:2002 harnesses			
<u>11.060</u>	01	EN 360:2002	Horizontal use; retractable type fall arrester	21.04.2018	27.12.2018	29.11.2019
11.062	01	EN 353-2 :2002, EN 355:2002; EN 360:2002	Testing with higher loads	21.04.2018	27.12.2018	29.11.2019
<u>11.063</u>	02	EN 355 :2002	Energy absorber - static test – dynamic test	23.11.2022	31.05.2023	31.01.2024
11.064	01	EN 353-1:2014, EN 353-2:2002	Different fall arrestors for fall arrest systems	21.04.2018	27.12.2018	29.11.2019
11.068	02	EN 12278:2007	Pulley, sheaves, static strength test	21.04.2018	21.04.2018	22.04.2019
11.069	02	EN 361:2002,	Synthetic fibre, breaking tenacity	21.04.2018	21.04.2018	22.04.2019
11.074	03	EN 354:2010, EN 355:2002	EN 354, EN 355, horizontal use; lanyards with energy absorber, short lanyard, edge test	22.11.2022	31.05.2023	31.01.2024
11.075	01	EN 353-2:2002	EN 353-2, horizontal use; guided type fall arrester including flexible anchor line , edge test	21.04.2018	27.12.2018	29.11.2019
11.081	02	EN 353-2:2002, EN 364:1992	Guided type fall arrester, dynamic performance, non integral energy absorber, non integral lanyard	14.10.2020	01.10.2021	18.11.2022
<u>11.083</u>	01	EN 355	Samples, test order	21.04.2018	27.12.2018	29.11.2019
11.084	02	EN 360 :2002, EN 364 :1992	Retractable type fall arrester, locking test	13.09.2023	07.12.2023	26.05.2024
11.085	02	EN 360:2002	Retractable fall arrester, fall factor, locking feature	14.10.2020	01.10.2021	18.11.2022
11.087	01	EN 360 :2002	Removable lanyard, non retractable termination lanyard	21.04.2018	27.12.2018	29.11.2019
<u>11.088</u>	03	Any EN on fall arrest if relevant	Rope / Knots, technique, end user, friction knots	13.09.2023	07.12.2023	26.05.2024
11.093	01	EN 341 :2011	Descender device, temperature test	21.04.2018	27.12.2018	29.11.2019
11.094	03	EN 358:2018, EN 354:2010	Pole choker, work positioning lanyard	23.11.2022	31.05.2023	31.01.2024
<u>11.095</u>	01	EN 795:2012, TS 16415:2013, EN 892:2012	Anchor device, free fall distance, test lanyard, rigid test mass	21.04.2018	27.12.2018	29.11.2019
<u>11.096</u>	01	EN 795:2012, EN 353-2 :2002, EN 360 :2002	Anchor device, type C, instructions for use, EN 360, EN 353-2	21.04.2018	27.12.2018	29.11.2019
11.098	01	EN 795:2012	Anchor device, type B, lanyard	21.04.2018	27.12.2018	29.11.2019
11.103	01	EN 795:2012, TS 16415:2013	Anchor device, static strength test, material, durability	21.04.2018	27.12.2018	29.11.2019
11.104	01	EN 362:2005, EN 12278:2007, EN 795:2012, EN 12275:2013, prEN 15567-1	Ropes courses, wire rope, Tyrolean, pulley, shuttle	21.04.2018	27.12.2018	29.11.2019
<u>11.105</u>	01	EN 341:2011	Descender device, classes	21.04.2018	27.12.2018	29.11.2019
11.106	02	EN 360:2002	Retractable type fall	07.06.2021	01.10.2021	18.11.2022

Status: September 2024

Number of RfU	Version	Reference	Keywords	Approved by Vertical	Approved by Horizontal	Endorsed by PPE Working
PPE-R/				Group 11	Committee	Group
			arrester, retraction function with rotation			
<u>11.108</u>	01	EN 795:2012, TS 16415:2013	Anchor device, anchor points	21.04.2018	27.12.2018	29.11.2019
<u>11.109</u>	01	EN 795:2012, TS 16415:2013	Anchor device, type C, requirement, low value	21.04.2018	27.12.2018	29.11.2019
<u>11.110</u>	01	EN 795:2012, TS 16415:2013	Anchor device, type C, energy absorber	21.04.2018	27.12.2018	29.11.2019
<u>11.111</u>	01	EN 795:2012, TS 16415:2013	Anchor device, type C, type A, post, fixing element	21.04.2018	27.12.2018	29.11.2019
<u>11.112</u>	01	EN 795 :2012, TS 16415 :2013	Anchor device, type C, authorized people, lifeline, span	21.04.2018	27.12.2018	29.11.2019
<u>11.113</u>	01	EN 795:2012, TS 16415 :2013	Anchor device, dynamic test, permanent deformation	21.04.2018	27.12.2018	29.11.2019
<u>11.114</u>	03		Load sharing device, rigging plates, use for work, industry, mountaineering	07.06.2021	01.10.2021	18.11.2022
<u>11.115</u>	01		Clamps, rescue, evacuation, lifting, lowering	21.04.2018	27.12.2018	29.11.2019
<u>11.116</u>	03	EN 353-1:2014 +A1:2017	Guided type fall arrester including rigid anchor line; angles of rigid anchor line	13.09.2023	07.12.2023	26.05.2024
<u>11.117</u>	02	EN 341:2011	Descender devices for rescue; Function Test	14.10.2020	01.10.2021	18.11.2022
11.118	01	EN 341:2011	Descender devices for rescue; textile rope lines	21.04.2018	27.12.2018	29.11.2019
<u>11.119</u>	01	EN 353-1: 2014+A1/2017	Guided type fall arrester including rigid anchor line; Number of users simultaneously	21.04.2018	27.12.2018	29.11.2019
<u>11.121</u>	01	EN 353-1:2014	Function test, arrest distance	21.04.2018	27.12.2018	29.11.2019
11.122	01	EN 360 :2002, EN 361 :2002	Retractable fall arrester, full body harness	21.04.2018	27.12.2018	29.11.2019
11.123	01	EN 360:2002, EN 341:2011, EN 1496:2017	Retractable fall arrester, descender device for rescue , rescue lifting device	21.04.2018	27.12.2018	29.11.2019
11.124	05	EN 360:2002	Retractable type fall arresters, twin, horizontal use	02.12.2021	30.04.2022	31.08.2023
<u>11.125</u>	03	EN 892:2012 +A1:2016, EN 1891:1998	Dynamic mountaineering rope, low stretch kernmantel rope, marking	07.06.2021	01.10.2021	18.11.2022
11.127	02	EN 361:2002	Full body harness, ergonomic tests	07.06.2021	01.10.2021	18.11.2022
11.128	03	EN 341:2011 EN 360:2002	Climbing gym, rope courses, lowering device, autobelay devices	13.09.2023	07.12.2023	26.05.2024
11.129	01	EN 353-1:2014 + A1:2017	Guided type fall arrester, closing mechanism	13.06.2019	15.09.2019	14.03.2022
<u>11.130</u>	01	EN 358:2018	Dynamic strength test, integrated lanyard	13.06.2019	15.09.2019	14.03.2022
11.131	01	EN 358:2018, EN 361:2002, EN 813:2008, EN 12277+A1: 2018	Fastening elements, harness, sit harness	13.06.2019	15.09.2019	14.03.2022
11.132	01	EN 361:2002	Maximum rated load, full	13.06.2019	15.09.2019	14.03.2022

Status: September 2024

Number	Version	Reference	Keywords	Approved by	Approved by	Endorsed by
of RfU				Vertical	Horizontal	PPE Working
PPE-R/				Group 11	Committee	Group
			body harness, instructions for use			
11.133	01	EN 892:2012 +A1:2016, EN 1891:1998	Dynamic mountaineering rope, low stretch kernmantel rope, construction	13.06.2019	15.09.2019	14.03.2022
<u>11.135</u>	03	EN 795:2012, EN 354 2010, EN 362 :2004, EN 12275:2013 EN 365 :2004	Swivel, use for work, industry, mountaineering	02.12.2021	30.04.2022	31.08.2023
<u>11.136</u>	01	EN 353-1:2014	Guided type fall arrester, connecting element	07.10.2019	01.10.2021	18.11.2022
11.137	01	EN 353-1:2014 +A1:2017	Guided type fall arrester, minimum distance test	14.10.2020	01.10.2021	18.11.2022
<u>11.138</u>	01	EN 17109:2020	Individual safety systems, rope courses	20.11.2020	01.10.2021	18.11.2022
11.139	01	EN 12841:2006, EN 341:2011, EN 1891:1998	Rope not conform to EN 1891, anchor line, line	20.11.2020	01.10.2021	18.11.2022
11.140	02	EN 12841-B: 2006, EN 567:2013, EN 361:2002, EN 358:2018, EN 813:2008, EN 12277:2015 +A1:2018	Rope clamp/Rope adjustment device used in harnesses	07.06.2021	01.10.2021	18.11.2022
11.141	01	EN 358:2018, EN 12841:2006	Compatibility, design	07.06.2021	01.10.2021	18.11.2022
11.144	01	EN 12275:2013	EN 12275, marking, classes B and T	23.11.2022	31.05.2023	31.01.2024
<u>11.145</u>	01	EN 17109:2020	ISS, MCD, connector	23.11.2022	31.05.2023	31.01.2024
11.146	01	EN 353-1 +A1:2018	EN 353-1, maximum span, dynamic performance, wire rope	13.09.2023	07.12.2023	26.05.2024
11.147	01	EN 564:2023	EN 564, knotted loop, performance	13.09.2023	07.12.2023	26.05.2024
<u>11.148</u>	01	EN 795:2012		13.09.2023	07.12.2023	26.05.2024
11.149	01	EN 12277 +A1:2018	EN 12277, samples	13.09.2023	07.12.2023	26.05.2024
11.150	01	EN 17520:2021	EN 17520, Dynamic, adjustable personal belay lanyard	13.09.2023	07.12.2023	26.05.2024
11.151	01	EN 353-2002	EN 353-2, marking, flexible anchor line	13.09.2023	07.12.2023	26.05.2024



PPE-R/11.004 Version 2

Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 22.04.2019
Question related to PPE Regulation	⊠ EN/prE	N: EN 364:1992	Other:
Article: Annex:	Clause: 5.1	1.2.1	
Key words:			
Length of the test lanyard			
Question:			
What is the definition of the length of a test lanyard?			
Solution:			
Define the length as per figure 2 of EN 1497:2007.			



PPE-R/11.006 Version 2

	RECOMMENDATION FOR USE			
Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 11	'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 22.04.2019
Question related to	☑ PPE Regulation	☐ EN/prE	N:	Other:
Article:	Annex:	Clause:		
Key words:				
EU type examined equipr	ment; minor variations, additional testing / v	verification		
Question:				
What are minor variations	s within EU type examined equipment whic	ch do not requ	uire additional testing / verification	on?
Solution:				
Examples of minor change	<u>es:</u>			
 Change in trade r 	nark			
 Change in referer 	ice			
 Change in markin 	9			
Documents to be supplied	d:			
 Formal letter from 	— n the manufacturer describing the change (s) in the equi	ipment and confirming that there	e is no further modification
 Manufacturers ted 	chnical specification relative to the change		-	
 Sample or specin 	nen			
Conditions of validity:				
· · · · · · · · · · · · · · · · · · ·	type examination extension			
	is to be kept in the file of the original equip	pment		
		•		



PPE-R/11.007 Version 2

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Number of pages: 1		MMENDATION FOR	Approval stage :	Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 22.04.2019	
Question related to		☐ EN/prEi	N:	☐ Other:
Article:	Annex:	Clause:		
Key words:				
EU type examined equ	uipment; medium variations; verifica	ation; re-examination		
What are medium vari examination (visual), r	ations within EU type examined equeview?	uipment which require v	erification by re-checking, visu	al inspection, re-
Solution:				
· · · · · · · · · · · · · · · · · · ·	to be verified by re-examination:			
· ·	colour of a strap or a sewing thread			
	an addition, a removal or a modific	•		
	subtraction or modification in a size	•	d length)	
 Change in leng 	gth of a lanyard on a retractable typ	De tall arrester		
Documents to be supp	lied by the manufacturer:			
 Formal letter fi 	om the manufacturer describing the	e change (s) in the equip	oment and confirming that the	e is no further modification
 Manufacturers 	technical specification relative to the	he change (drawings, pa	arts list, letter of subcontractor,)
 One specimen 	of the modified equipment for verif	fication and storage		

- One specimen of the original equipment for comparison with the modified equipment

Conditions of validity:

- Examination on the modified equipment
- Delivery of an EU type examination extension
- The extension file is to be kept in the file of the original equipment



PPE-R/11.008 Version 2

* * *	RECO	MMENDATION FOR USE	
Number of pages: 1	-	Approval stage :	Approved on :
Origin : Vertical Grou	p 11 'Protection against Falls from a	a Height' ⊠ Vertical Group ⊠ Horizontal Committee ⊠ EU PPE Working Group	
Question related to		☐ EN/prEN:	Other:
Article:	Annex:	Clause:	
Key words: EU type examined eq	uipment; essential variations; spec	ific or partial tests	
Question:			
What are essential va	rrations within EU type examined e	quipment which require specific or partial test?	
Solution:			
Examples of essentia	l changes requiring specific or parti	al tests:	
 On a belt, a c 	hange in the type of carriage guard		
On a harness	, a change in the metal buckle (mat	terial, dimension, treatment,)	
On a harness	, a change in the dorsal plate		
 On a connect 	or, a change in the anti-corrosion tr	reatment	

Documents to be supplied by the manufacturer:

- Formal letter from the manufacturer describing the change (s) in the equipment and confirming that there is no further modification
- Manufacturers technical specification relative to the change (drawings, parts list, letter of subcontractor, ...)
- One or several specimens of the modified equipment, or one or several samples of the modified component for performing the tests
- One specimen of the original equipment for comparison with the modified equipment

Conditions of validity:

Performance of specific tests on the modified equipment

On a retractable type fall arrester, a change in the termination

- Delivery of an EU type examination extension
- The extension file is to be kept in the file of the original equipment

N.B.: When an equipment is modified several times, it is necessary to query the continuation of the original certificate.



PPE-R/11.009 Version 2

Number of pages: 1	Approval stage :	Approved on :
Origin: Vertical Group 11 'Protection against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 22.04.2019
Question related to PPE Regulation	☐ EN/prEN:	☐ Other:
Article: Annex:	Clause:	
Key words:		
EU type examined equipment; essential variations; EU type examina	ation	
Question:		
What are essential variations in EU type examined equipment which	require a new EU type examination?	
Solution:		
Examples of essential changes requiring an EU type examination:		
 On all PPE types, simultaneous or successive changes in contract. 	omponents requiring processing as in sheet	no. 11.008
 On a harness, a change in the arrangement of straps and/or 	seams	
 On a harness, a fundamental change in strap (width, materia 	al,)	
 On a harness, an addition, a removal or a shifting of an attac 	chment point	
- On a lanyard, a change in the termination (slice, ferrule,)		
 On a retractable type fall arrester, a fundamental change in 	components	
 On a guided type fall arrester on anchorage line, a change in anchorage line (diameter, material,) 	n the fall arrester (principle, configuration, m	naterial,) or in the
Documents to be supplied by the manufacturer:		
 According to the EU type examination 		
Conditions of validity:		
 According to the EU type examination procedure 		
 The equipment is subjected of a specific storage and identified 	cation	



PPE-R/11.019 Version 2

Number of pages: 1	А	pproval stage :	Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'		☑ Vertical Group ☑ Horizontal Committee ☑ EU PPE Working Group	21.04.2018 21.04.2018 22.04.2019
Question related to PPE Regulation	⊠ EN/prEN:	EN 364:1992	Other:
Article: Annex:	Clause:		
Key words:			
Energy absorber; chain test lanyard			
Question:			
How can the influence of the chain test lanyard on the peak force in t	he dynamic pe	erformance test of an energy a	absorber be avoided?
Solution:			
The influence of the chain test lanyard on the peak force in the dynar cell is directly connected to the energy absorber and not to the chain		ce test of an energy absorber	can be avoided, if the load



PPE-R/11.023 Version 2

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 22.04.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: All	Other:
Article:	Annex:	Clause:		
Key words:	a rata			
Static testing; stressing	y rate			
Question:				
	rate during static testing be adjusted to avoid	d dynamic eff	ect and overshooting of force o	ontrol equipment?
S	5 5 ,	,	ŭ	
Solution:				
	ing static testing shall not be constant or at a oid dynamic effects and overshooting of force			shall be reached within a
acceptable time to avo	and dynamic effects and overshooting of force	control equip	intent.	



PPE-R/11.024 Version 2

Number of pages: 1		Approval stage :	Approved on :
Origin: Vertical Group 11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 22.04.2019
Question related to PPE Regulation	⊠ EN/prEl	N: EN 364:1992	Other:
Article: Annex:	Clause:		
Key words:			
Dynamic force measurement; filter characteristic			
Question:			
How are the filter characteristics used for dynamic force measurement	ents?		
Solution:			
The filter characteristics used for dynamic force measurements durin	ng testing of F	PPE against falls from a height	are as follows:
1. Type: Low-Pass			
2. Characteristic: Butterworth			
3. Cutoff-Frequency: 60 Hz			
4. Tolerance level at 0 Hz: +0,1/-0,2 dB			
5. Tolerance level at 60 Hz : (-3dB) +0,1/-0,3 dB			
6. Slope: 24 dB/Octave			
7. Tolerance level of the slope : +5/-5 dB			
8. Attenuation band: -50 dB			



PPE-R/11.031 Version 1

Number of pages: 1			App	proval stage :	Approved on :
Origin : Vertical Group	11 'Protection against Falls from a Height'		\boxtimes	Vertical Group	21.04.2018
			\boxtimes	Horizontal Committee EU PPE Working Group	27.12.2018 29.11.2019
Question related to	☐ PPE Regulation	☐ EN/prE			Other:
Question related to			.I V .		_ outor.
Article:	Annex:	Clause:			
Key words:					
Canyoning; caving					
Question:					
How to perform testing	of harnesses used in "canyoning" and "caving	g" sport?			
Solution:					
	ve described sports have to be tested accord	ling to FN 12	277	"Mountaineering Equipmer	nt - Harnesses"
Training de de de la radio	TO GOOD DOG OPONO HAVO TO DO TOCTOR GOOD A	g to		mountainooning =qaipinoi	ik Hambooo



PPE-R/11.034 Version 2

Number of pages: 2			Approval stage :	Approved on :
Origin : Vertical Group	11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 22.04.2019
Question related to		⊠ EN/prE	N: EN 353-2 :2002	☐ Other:
Article:	Annex:	Clause:		
Key words:				
Fall protection system;	special use			
Question:				
How to test and certify	fall protection systems for use in corrosion pr	otective wor	k on latticed tower masts	
Solution:				
See attached				

Requirement:

see EN 353-2:2002

diverging from the standard in the following points:

- length of the lanyard > 1 m
- arrest distance H ≤ 5,75 m
- the "locking test after conditioning" can be omitted

Additional requirements:

- The fall arrester must be provided with a self-locking device that prevents the fall arrester from sliding down the anchor line.
- It must not be possible to release the locking device of the fall arrester when the user holds on to it in panic in case of a fall from a height.
- static strength test of the anchor line with the fall arrester attached (15 kN, to be maintained for 3 min.)
- The correct function of the fall arrest system has to be ensured even if the coating materials can soil the
- The position of the lower attachment on the anchor line must not change during the loading or load alleviation of the flexible anchor line.

Tests to be carried out:

- dynamic performance test with the shortest possible length of the rope, according to EN 364:1992, clause 5.5.2.
- for systems with two ropes, the load may be measured at either the fall arrester or at the lanyard
- dynamic performance in the lower part of the anchor line; with the system attached at the maximum permissible height (drop test with a 100 kg falling mass carried out at a height of approx. 8 m above ground level - measure the arrest distance H after the test, no determination of the arrest force)
- dynamic performance test according to EN 364:1992, clause 5.5.4
- static strength of the flexible anchor line (for textile materials 22 kN, for metallic materials 15 kN, to be maintained for 3 min. in either case), attachment at the end terminations for ropes with permanently installed end terminations or via discs for ropes without permanently installed end terminations (knots)
- static strength test of the lanyard, according to EN 364:1992, clause 5.2.2 (for textile materials 22 kN, for metallic materials 15 kN).
- static strength test carried out on the anchor fine with the guided type fall arrester attached (15 kN, to be maintained for 3 min.), if necessary, the rope is knotted in order to block the fall arrester
- corrosion resistance according to EN 364:1992, clause 5.13
- if the flexible anchor line consists of two ropes, static strength test of the lower attachment (15 kN, to be maintained for 3 min.)

Tests to be carried out:

- dynamic performance test with the shortest possible length of the rope, according to EN 364:1992, clause 5.5.2.
- for systems with two ropes, the load may be measured at either the fall arrester or at the lanyard
- dynamic performance in the lower part of the anchor line; with the system attached at the maximum permissible height (drop test with a 100 kg falling mass carried out at a height of approx. 8 m above ground level measure the arrest distance H after the test, no determination of the arrest force)
- dynamic performance test according to EN 364:1992, clause 5.5.4
- static strength of the flexible anchor line (for textile materials 22 kN, for metallic materials 15 kN, to be maintained for 3 min. in either case), attachment at the end terminations for ropes with permanently installed and terminations or via discs for ropes without permanently installed end terminations (knots)
- static strength test of the lanyard, according to EN 364:1992, clause 5.2.2 (for textile materials 22 kN, for metallic materials 15 kN)
- static strength test carried out on the anchor line with the guided type fall arrester attached (15 kN, to be maintained for 3 min.), if necessary, the rope is knotted in order to block the fall arrester
- corrosion resistance according to EN 364:1992, clause 5.13
- if the flexible anchor line consists of two ropes, static strength test of the lower attachment (15 kN, to be maintained for 3 min.)

Additional information to be included in the instructions for use:

- information that the fall arrest system may only be used in corrosion protection work on latticed tower masts.
- warning: a collision with elements of the structure cannot be excluded



PPE-R/11.037 Version 2

Number of pages: 1	Approval stage :	Approved on :
Origin: Vertical Group 11 'Protection against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 22.04.2019
] EN/prEN: EN1891:1998, EN 64:1992	Other:
Article: Annex: Cl	lause: 5.9.2	
Key words:		
Low stretch kernmantel rope - drop machine		
Question:		
Dynamic performance and number of drops: Which drop machine has to	be used (free fall or guided)?	
Solution:		
VG11 recommends to use the free fall machine.		



PPE-R/11.040 Version 2
Version 2

* * * * RECOMMENDATION FOR USE				
		Approval stage :	Approved on :	
p 11 'Protection against Falls	s from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	23/11/2022 31/05/2023 31/01/2024	
☑ PPE Regulation:	EN	I/prEN:	Other:	
Annex:	Clause:			
, marking, ageing				
Question:1. Should PPE against fall from a height subject to ageing be marked with the date of manufacture even if the particular standard does not require this?2. What shall be the format of the date?				
			eight subject to ageing	
		ar and the month. There is	no required format for	
,	PPE Regulation: Annex: Annex: against fall from a height substandard does not require the the format of the date? if obsolescence date is not in narked with the date of manudate's marking should at least	PPE Regulation: Annex: Clause: Annex: Clause: against fall from a height subject to ageing ber standard does not require this? e the format of the date? If obsolescence date is not marked. Note: all narked with the date of manufacture and/or of	Approval stage: Protection against Falls from a Height	



PPE-R/11.	041
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Version 02

NEOOMINENDA	HON I OK OOL	
Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 11	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	07.06.2021 01.10.2021 18.11.2022
Question related to PPE Regulation PPE Guidelines	☑ EN/prEN: EN 795:2012 - type B	☐ Other:
Article: Annex:	Clause:	
Key words:		
Vacuum, magnetic, anchor device		
Question:		
How to assess anchor devices attached to a structure by vacuum pre	ssure or by magnetism?	
Solution:		
	are about he tested to EN 705:2010 as a	huna D
Anchor devices attached to structure by vacuum pressure or magneti	sm should be tested to EIN 795.2012 as a	туре в
device. Design shall at least take into account the base material.		
Conditions of use shall at least take into account following parameters	: :	
 supporting surface (material, thickness, finish) 		
 environmental conditions (temperature, humidity, etc.) 		
direction of loading		
cleanliness of the surface		
distance from an edge		



PPE-R/11.042 Version 1

	RECOMINIENDATION F	UK USE		
Number	of pages: 1	Approval stage :	Approved on :	
Origin : \	ertical Group 11 'Protection against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 27.12.2018 29.11.2019	
Question	related to PPE Regulation EN/p	orEN: EN 353-2:2002	Other:	
Article:	Annex: Clause:			
Key word	ds:			
Guided T	Type Fall Arrester - Incorrect attachment and use			
Question	:			
1)	Guided type fall arresters can be provided with a locking device or c (normally upwards). The release function/button of the fall arrester n function from working – What kind of warning shall be included in the	nust be operated by hand. This ma	ay prevent the fall arrest	
2)	There are safety concerns associated with the use of guided type fa warning should be included within the manufacturer's user instruction		rposes – What kind of	
3)	3) There are safety concerns associated with the use of incorrect/unsuitable harness attachment points and connections when used in conjunction with guided type fall arresters – What kind of warning should be included within the manufacturer's user instructions?			
4)	How to test GTFA having more than 1 method of operation or having	g a natural locking position?		
Solution:				
1)	The instructions for use shall include a warning that the release fund danger of falling (i.e. they have a safe hand).	ction/button must only be operated	when the user is in no	
2)	The instructions for use shall confirm whether or not the system can	be used for work positioning purp	oses.	
3)	The instructions for use shall indicate the requirements for attachme sternum) and a warning that the intended connection between the u with an additional connector or lanyard).			
4)	Each natural locking position or under each method of operation sha EN 353-2:2002	all also be dynamically tested acco	ording to articles 4.5/5.3 of	



PPE-R/11.043 Version 2

Number of pages: 1	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group✓ 22.04.2019
	☑ EN/prEN: EN 361:2002, EN ☐ Other: 158:1999
Article: Annex: C	Clause:
Key words:	
Back support; full body harness; waist belt; work positioning elements	
Question:	
Must a full body harness including work positioning elements have a wa	aist belt or back support?
Solution:	
There is no need of a waist belt or back support if the force is applied to	o the user's body in a way that provides the similar comfort.



PPE-R/11.049 Version 2

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 22.04.2019
Question related to		⊠ EN/prE	N: EN 1891:1998	Other:
Article:	Annex:	Clause:		
Key words:				
Low stretch kernmante	l ropes; diameter			
Question:				
Shall the requirement of	of 8,5 mm for the diameter of low stretch kerni	mantel ropes	s be strictly fulfilled?	
Solution: No, the minimum diam	eter shall be 8,5 mm or of a value giving the e	equivalent sa	fety.	



PPE-R/11.050 Version 2

Number of pages: 1	Approval stage: Approved on:
Origin: Vertical Group 11 'Protection against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group✓ 21.04.2018✓ 22.04.2019
Question related to PPE Regulation	N: EN 353-2:2002
Article: Annex: Clause: 4.4	4.2
Key words:	
Guided type fall arrester including a flexible anchor line; static strength	
Question:	
How should the static test be carried out under EN353-2?	
1/ Should the static test include the whole system (e.g flexible anchor line specifi	ed by the manufacturer and the fall arrester)?
2/ Should the device be loaded through the fall arrester attachment eye/lanyard/d	connector?
3/ What is the static strength a guided type fall arrester including a flexible ancholanyard?	or line shall resist, if it is provided with a connector only, no
Solution:	
1/ Yes – The test should be carried out to provide a strength test of the whole sy manufacturer). If the fall arrester slips on the flexible anchor line during the static as described in EN 12841:2006	
2/ Yes - The device should be loaded through the attachment eye/lanyard/conne	ector as per normal use
3/ The guided type fall arrester together with its connector shall withstand a strer accordance with EN 353-2:2002, clause 5.2.2.2, but without a lanyard.	ngth of 15 kN. The testing shall be carried out in



PPE-R/11.051

Version 02

K	RECOMMEND	DATION FOR USE	
Number of pages: 2		Approval stage :	Approved on :
Origin : Vertical Group 1	1	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	07.06.2021 01.10.2021 18.11.2022
Question related to	PPE Regulation	⊠ EN/prEN: all EN for PPE against fall from a height with load bearing textile element	☐ Other:
Article:	Annex:	Clause:	
Key words: Load bearing textile mate	rials		
Question: Which kinds of load beari are not?	ng textile materials are acceptable for use	in personal protective equipment against fall	s from a height and which
Solution:			
Note: solution takes into	account document N1042 from TC136/W	G5	
The following requireme	nts apply to the load bearing textile materia	als used in personal protective equipment ag	ainst falls from a height.
Note 1: Mixtures of acce	ptable materials are also acceptable.		
Note 2: Materials that ar bearing material(s) are a		yarn, polyethylene made of monofilament fil	ores) but mixed with load
Note 3: Other load beari	ng textile materials are not acceptable exc	ept if documented justification can be provide	ed for specific application.
A – ROPES Examples: as PPE (dynaretractable lanyard,)	amic rope, low stretch kernmantel rope, ac	ccessory cord) or component of PPE (lanyard	, sling, anchor line,
Common materials			
A1 - polyamide:			
acceptable. A2 -			

polyester: acceptable.

A3 - polypropylene: **acceptable** if providing a suitable UV resistance justification (e.g. compliance with EN1263:2014) given by the manufacturer.

High strength materials

- A4 Aramid (e.g. Technora®, Kevlar®, Twaron®): **acceptable**, but if used in the outer sheath, the instructions for use requires an additional warning about low UV resistance.
- A5 Liquid Cristal Polymer (LCP) other than aramids (e.g Vectran®): **acceptable**, but if used in the outer sheath, the manufacturer's instructions and information requires an additional warning about low UV resistance.
- A6 Ultrahigh molecular weight polyethylene (UHMWPE) e.g. Dyneema®, Spectra®: **acceptable** but if used in the outer sheath, the manufacturer's instructions and information requires a warning about the low melting point (140°C) and low friction coefficient (slipperiness) of the material.

B-WEBBINGS

Examples: as PPE (tape) or component of PPE (harness, work positioning belt, lanyard, sling, retractable lanyard,...)

Common materials

B1 - polyamide:

acceptable. B2 -

polyester: acceptable.

B3 - polypropylene: **acceptable** if providing a suitable UV resistance justification (e.g. compliance with EN1263:2014) given by the manufacturer

High strength materials

- B4 Aramid (e.g. Technora®, Kevlar®, Twaron®): **acceptable**, but the manufacturer's instructions and information requires an additional warning about low UV resistance.
- B5 Liquid Cristal Polymer (LCP) other than aramids (e.g Vectran®): **acceptable**, but the manufacturer's instructions and information requires an additional warning about low UV resistance.
- B6 Ultrahigh molecular weight polyethylene (UHMWPE) e.g. Dyneema®, Spectra®: **acceptable** but the manufacturer's instructions and information requires a warning about the low melting point (140°C) and low friction coefficient (slipperiness) of the material.

C - STITCHING MATERIAL

Common materials

C1 - polyamide:

acceptable. C2 -

polyester: acceptable.

C3 - polypropylene: **acceptable** if providing a suitable UV resistance justification (e.g. compliance with EN1263:2014) given by the manufacturer.

High strength materials

- C4 Aramid (e.g. Technora®, Kevlar®, Twaron®): **acceptable**, but if used on the product surface, the instructions for use requires an additional warning about low UV resistance
- C5 Liquid Cristal Polymer (LCP) other than aramids (e.g Vectran®): **acceptable**, but if used on the product surface, the manufacturer's instructions and information requires an additional warning about low UV resistance
- C6 Ultrahigh molecular weight polyethylene (UHMWPE) e.g. Dyneema®, Spectra®: **acceptable** but if used on the product surface, the manufacturer's instructions and information requires a warning about the low melting point (140°C).



PPE-R/11.053 Version 2

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 22.04.2019
Question related to		⊠ EN/prE	N: EN 361:2002	☐ Other:
Article:	Annex:	Clause:		
Key words:	at la ava			
Full body harness: from	1t 100ps			
Question:				
	using the right connector to form the front att	tachment poi	nt of a full body harness which	comprises two attachment
elements e. g. webbing			,	
Solution:				
The manufacturer is reinstructions.	esponsible to specify exactly the type of conne	ector e. g. typ	be / model which should be deta	ailed within the PPE user
If the manufacturer su axis, while attached to	pplies a connector with the harness, the conn the harness	ector will be	tested statically to EN 361:2002	2 in the most unfavourable



PPE-R/11.	057
Version 2	

Number of pages: 1	1	Approval stage :	Approved on :
Origin: Vertical Group 11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 22.04.2019
Question related to PPE Regulation	⊠ EN/prEN	I: EN 361:2002	Other:
Article: Annex:	Clause:		
Key words:			
Marking of fall arrest attachment points on EN 361:2002 harnesses			
Question:			
How could the 'A' marking appear on EN 361:2002 fall arrest attachm	nent points?		
Solution:			
1) Minimum height: 10 mm			
2) Letter 'A' to be no more than 50 mm from the attachment point			
3) Divided attachment elements should be marked:			
A/2 or \triangle			



PPE-R/11.060 Version 1

N USE	
Approval stage :	Approved on :
✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 27.12.2018 29.11.2019
N: EN 360:2002	Other:
l use over an edge?	
rs. It is presumed that the ancho	or point of the retractable
e with EN 360:2002.	
dge with an edge radius of 0.5 r vith an edge radius of 0.5 mm an edge radius of 0.5 mm	nm
	Approval stage: Vertical Group Horizontal Committee EU PPE Working Group N: EN 360:2002 I use over an edge? Is. It is presumed that the anchor with an edge radius of 0.5 mm with an edge radius of 0.5 mm

4. Additional tests to be carried out:

4.1 Edge to be used for testing:

For the dynamic tests, **an edged (type A)** drawn square steel bar in accordance with EN 10278:1999 (material C 45+C or E 335 GC (ST60) pursuant to EN 10025) shall be used. The dimensions of the steel bar shall be at least 10 x \leq 70 mm, the edge radius (0.5 +/-0.05) mm, the surface roughness in accordance with EN ISO 1302: average surface finish Ra = 3.2 μ m.

Observe after each test the edge is still intact otherwise use a new edge

4.2 Test mass and sample lengths:

1- The test mass (steel weight as in EN 364:1992) shall correspond to the nominal weight, but shall at least be 100 kg. Note: the nominal mass shall be the same as for vertical use (according to EN 360:2002)

2- According to 4.4 and 4.5 requirements and figure 1, the manufacturer has to provide following samples for testing:

- Dynamic performance perpendicular to the edge : L = 3,3m (exact value for lab: 3 354mm)
- Dynamic performance with a lateral offset of 1.50m : L = 3.8m (exact value for lab: 3 807mm)
- Dynamic strength perpendicular to the edge : L = 3,6m (exact value for lab: 3 606mm)
- Dynamic strength with a lateral offset of 1.50m : L = 4,0m (exact value for lab: 4 030mm)

Nota: test lab can adjust the exact length specified between brackets on its test facility

if necessary anchor the device to a length of chain to achieve the 1.5 m offset.

4.3 Locking performance:

Mount the retractable type fall arrester as indicated by the manufacturer, in a horizontal arrangement. The lanyard is directed vertically downwards by means of a pulley, at a distance of 300 mm from the outlet.

When a mass of between 5 and 30 kg is attached to the lanyard, the retractable type fall arrester shall lock within a distance of 2.00 m

4.4 Dynamic performance

In two drop tests, the retractable type fall arrester is submitted to a dynamic performance test in a horizontal arrangement as indicated by the manufacturer, similar to the test arrangement (see figure 1). The anchor point shall be situated at the same level as the edge used for testing. The distance between the anchor point and the edge must be 2.5 m. A new test sample may be used for each drop test. No support has to be placed below the case (except if the manufacturer specifies in its Instructions for use that the case has to be used level and give information of this support)

The test shall be performed on the lanyard itself.

If a testing component (like mass, load cell, test connector), a cover (thimble, rubber cover) or an integral connector would hit the edge, the test shall be performed again by increasing the previous offset distance such as these components would not strike the edge

A first drop test is carried out perpendicularly to the edge and a second drop test with a lateral offset of 1.50 m. The drop weight is released from a height of 1.50 m and at a horizontal distance of 500mm from the edge. The force is measured at the test mass and the arrest distance shall be determined. If the test mass or a connecting element (e.g. connector) used for test hits the edge, repeat the test with a longer horizontal distance in a such a way that only a part of the EN 360:2002 device hits the edge

- The determined braking force at the test mass shall not be greater than 6 kN.
- The retractable type fall arrester shall hold the test mass.

Both dynamic performance shall be carried out at the end stop with the full lanyard being withdrawn from the device. For this purpose, the lanyard provided by the manufacturer together with the retractable type fall arrester shall have an adequate length (Cf. to 4.2).

4.5 Dynamic strength

Two drop tests are carried out following the same test arrangement as described in 4.4. However, the drop height of the test mass is 2m above the edge. A new test sample may be used for each drop test.

The arrest distance and the braking force are not determined.

The retractable type fall arrester shall hold the test mass.

4.6 Static strength

After the dynamic strength test, with the same test arrangement, the force applied to the lanyard is increased to 3 kN for wire ropes or 4.5 kN for textile lanyards and is maintained for 3 min.

The lanyard shall withstand the force.

4.7 Test with non rigid anchor device

If the manufacturer claims the retractable fall arrester can be used in conjunction with a non rigid (flexible) anchor device, dynamic performance tests have to be repeated with this combination.

5. Additional information to be included in the marking:

- Advice that a horizontal use of the retractable type fall arrester over an edge type A. is possible (pictogram if applicable)
- Advice that loading of the retractable type fall arrester over edges shall be avoided.

6. Additional information to be included in the instructions for use:

 Advice that the retractable type fall arrester was tested also for horizontal use and a drop over a Type A edge has been successfully tested.

Type A edge definition: A steel edge with a radius of r = 0.5 mm and without burrs was used for the test. Due to this test, the equipment may be used over similar edges, as can be found e.g. at rolled steel profiles, at wooden beams or at a clad, rounded roof parapet. However, the following shall be considered when the equipment is used in a horizontal or transverse arrangement and a risk of a fall from a height over an edge exists:

- 1. If the risk assessment carried out before the start of the work shows that the edge is very "cutting" and / or "free of burrs" (such as in case of an unclad roof parapet, a rusty steel girder or a concrete edge)
 - relevant measures shall be taken before the start of the work to prevent a drop over the edge or,
 - before the start of work, an edge protection shall be mounted or
 - the manufacturer shall be contacted.
- The anchor point may only be situated at the same height as the edge at which a fall might occur or above the edge.
- 3. The required clearance below the edge at which a fall might occur shall be defined.
- 4. To attenuate a drop ending in a pendulum movement, the working area or lateral movements to both sides of the centre axis shall be limited to a maximum of 1.50 m. In other cases, no individual anchor points, but, e.g., type C or type D anchor devices in accordance with EN 795:2012 shall be used.
- b) Indication whether the retractable type fall arrester may be used with a type C anchor device in accordance with EN 795:2012 with a horizontal flexible anchor line. (Note: This combination must have been submitted to EU type examination).
 - Furthermore, the deflection of the anchor device shall be taken into account when determining the clearance required below the feet of the user. To that effect, the indications specified in the instructions for use of the anchor device shall be considered.
- c) The deflection of the anchor device shall be taken into account when determining the clearance required below the feet of the user. To that effect, the indications specified in the instructions for use of the anchor device shall be considered.
- d) Advice on existing risks of injury during fall arrest when the user collides with parts of building or construction during a fall over the edge.
- e) Advice that, for the event of a fall over the edge, special rescue measures shall be defined and trained.

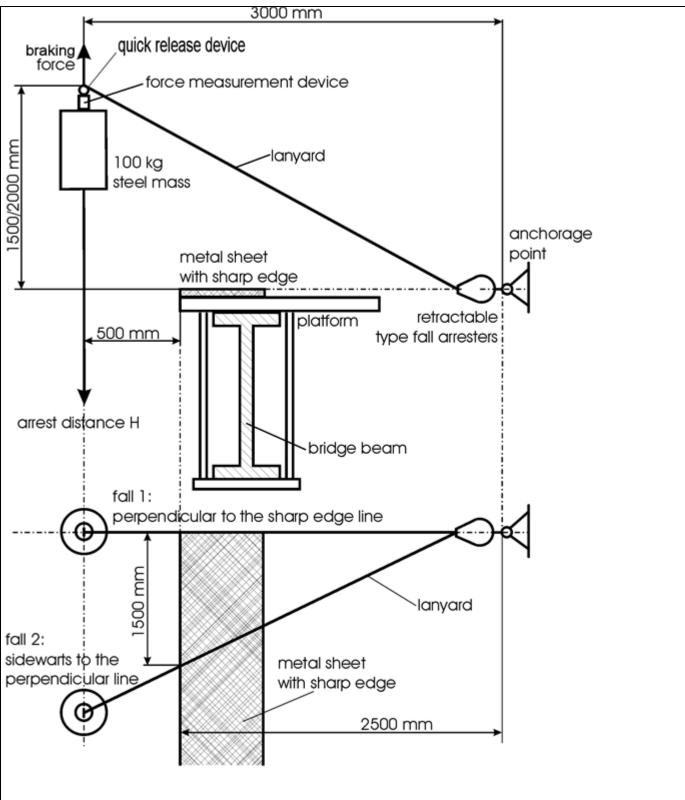


Figure 1: Dynamic performance test for retractable type fall arrester in horizontal use



PPE-R/11.062 Version 1

Number of pages: 1	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	 ✓ Vertical Group ✓ Horizontal Committee ✓ EU PPE Working Group ✓ 29.11.2019
	☑ EN/prEN: EN 353-2 :2002, ☐ Other: EN 355:2002; EN 360:2002
Article: Annex:	Clause:
Key words:	
Testing with higher loads	
Question:	
How shall following PPE tested when the manufacturer claims in the ir	nstructions a user weight greater than the standard 100 kg?
Guided type fall arrester including a flexible anchorage line (EN 353-2:2002)
 Energy absorber (EN355:2002) 	
Retractable type Fall arrester (EN360:2002)	
Note: EN 353-1:2014 already requires test at maximum rated load	
Solution:	
These equipments shall be dynamically tested based on relevant stan Values of standard have to be met.	dard with standard load value and with value manufacturer gives.
Note: in absence of specified claim for user weight, test shall be carrie	d out with the 100kg mass



PPE-R/11.063 Version 2

RECOMMENDATION FOR USE

Update: in red

Number of pages: 2			Approval stage :	Approved on :
Origin : Vertical Group 11 'F Height'	rotection against Falls from	a	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	23/11/2022 31/05/2023 31/01/2024
Question related to	PPE Regulation	⊠ EN	J/prEN: EN355:2002	Other:
Article: A	nnex:	Clause:		
Key words:				
Energy absorber - static tes	t – dynamic test			
Question:				
What test method should be	e used to carry out test on er	nergy abso	orber including an integral la	anyard?
Solution:				

Energy absorber including an integral (incorporated/ inseparable) lanyard shall be tested according to following methods:

Note 1: Each test shall be performed using a new sample

Note 2: requirements apply to both fixed and adjustable lanyard

1. Static-Test for incorporated lanyard/s energy absorbers

If the energy absorber is incorporated in a lanyard, the lanyard part shall be tested according to EN 354:2010. art 4.5 (including all applicable conditionings)

Note 3: twin tail energy absorbers shall be 'c-c' tested according to 4.5 and 5.7.2.3 of EN 354:2010 (e.g. 22kN for textile lanyards) whatever the design (independent or linked tail)

2. Static-Test - 3-points loading test for twin tail energy absorbers

A 3-point test shall be performed starting with a situation as given in figure on the right. The legs shall be adjusted initially in line with no slack. For adjustable lanyards, legs shall be fully extended before the test. The energy absorbing element shall be positioned perpendicular to the line of the legs. A static load of 9 kN shall be applied for 3 minutes at the attachment point of the energy absorbing element while the attachment points of the twin tail lanyards are fixed. The energy absorbing element/twin tail lanyardssystem shall sustain the static load. Leg Leg 2

Static **Energ** absorbin elemen

Figure: 3-point test with legs at start in line, perpendicular energy absorbing element

Note 4: The 9 kN test force is based on a

safety factor of 1.5 on the 6 kN maximum force likely to be applied in use. Due to the force amplification effect in the legs, a 15 kN force is not considered necessary

3- Dynamic performance test on twin tail energy absorber with an energy absorbing element on each leg In case of energy dissipating element in both legs, repeat the dynamic performance test (EN 355 article 5.2) by testing both legs together.

Requirement: same as EN 355:2002



PPE-R/11.064 Version 1

Number of pages: 1	Ар	pproval stage :	Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'		Vertical Group	21.04.2018
		Horizontal Committee EU PPE Working Group	27.12.2018 29.11.2019
Question related to PPE Regulation PPE Guidelines	⊠ EN/prEN: □ EN 353-2:2002	EN 353-1:2014, 2	Other:
Article: Annex:	Clause:		
Key words:			
Different fall arrestors for fall arrest systems			
Question:			
Is it possible to certify a vertical fall arrest system where the mobile at company to the one that originally supplied and installed the cable an			the end user by a different
Solution:			
Certification can only be based on the combinations of equipment that The end user must take responsibility to ensure that only certified con			irements of the standard.



PPE-R/11.068 Version 2

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 22.04.2019
Question related to		⊠ EN/prE	N: EN 12278:2007	Other:
Article:	Annex:	Clause: 4.	2	
Key words:				
Pulley, sheaves, static	strength test			
Question:				
How to test pulleys with	h more than one sheave when they are not in	tended for in	ndividual use?	
Solution:				
When not intended to I	be used individually they shall be tested toget	her as per in	use.	



PPE-R/11.069 Version 2

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 22.04.2019
Question related to	☑ PPE Regulation	⊠ EN/prE	N: EN 361:2002,	Other:
Article:	Annex:	Clause: 4.	2	
Key words:				
Synthetic fibre, breaking	g tenacity			
Question:				
	ng tenacity of synthetic fibre as 0,6 N/tex?			
now to commit breaking	ig teriabily of synthetic libre as 0,0 twick :			
Solution:				
	e confirmation (e.g. certificate of conformity) in 6 N/tex.	n manufactu	rer's technical file declaring the	minimum breaking tenacity
=	is not applicable to accessory straps.			



PPE-R/11.074 Version 3

RECOMMENDATION FOR USE

Approval stage :

V3: updates in red

Number of pages: 3			Approval stage :	Approved on :
Origin : Vertical Group	o 11 'Protection against Falls f	rom a Height'	✓ Vertical Group✓ Horizontal Committ✓ EU PPE Expert Group	
Question related to	☑ PPE Regulation	⊠ EI 354:2010, E 355:200		Other:
Article:	Annex:	Clause:		
Key words:				
EN 354, EN 355, hori.	zontal use; lanyards with ener	rgy absorber, <mark>short l</mark>	anyard, edge test	
Question:				
What tests are necess	sary for lanyards with an ener	gy absorber intende	ed for horizontal use over	r an edge?
Solution: Preliminary remarks:				

1-Remark for forked lanyard:

Forked lanyard with one energy absorbing element: horizontal test with one leg. (to be repeated if the two legs are different) Forked lanyard with energy absorbing element at each leg: horizontal test with one leg (to be repeated if the two legs are different) and on both legs

2-Remark for short lanyards

Considering the 4 test configurations (performance/strength and direct/offset) and the fact that the lanyard shall impact the edge from the start till the end (e.g; at the end of the pendulum), some small lanyards with an energy absorber are too short to be tested.

The test principles relate to the testing of the partial system lanyard including energy absorber. This means that the energy absorber must form a non-detachable unit with the lanyard, whereby one initially assumes a random position of the energy absorber in the system. The anchor point of this partial system may not be lower than the stand level of the user. An angle (measured between the two legs of the fastener / mobile guide) of at least 90° is assumed for the deflection on an edge.

General requirements:

EN 354:2010 EN 355:2002

Additional requirements:

- Dynamic performance with horizontal arrangement and stress over an edge
- Dynamic and static strength with horizontal arrangement and stress over an edge

Additional test to be performed:

Preliminary remarks:

A drawn square steel bar pursuant to EN 10278:1999 (Material C 45 K / E 335 GC (ST60) pursuant to EN 10025) is to be used as a rest edge for the dynamic tests. The minimum dimensions of the steel bar must be 10 x 70 mm, the edge radius 0.5 mm. The drop weight (steel weight analogous to EN 364:1992) must correspond to the nominal load, though at least 100 kg. The nominal load to be used shall be the same as that claimed according to RfU 11.062 if applicable

During the test the chain / wire rope and the lanyard end connector shall not touch the bar stock

To 1: dynamic performance

The lanyard including energy absorber is dynamically stressed in a horizontal arrangement, as specified by the manufacturer, analogous to the test plan (Enclosure) through two drop tests.

If the partial system is too short it may be connected to the anchor point by means of a chain or wire rope. A new test sample may be used for each drop test.

For each of the 2 tests, if the product is too short to be tested (see second preliminary remark), the manufacturer can supply a longer test specimen, so that the lanyard will hit the edge from the start till the end

One drop test is carried out at right angles to the edge, another with a lateral offset of 1.50m. The falling weight is dropped from a height of 1.50m and at a horizontal distance of 50cm from the edge. The braking force is measured at the mass and the arresting section determined.

- The braking force determined at the mass nay not exceed 6 kN
- The lanyard/energy absorber must withstand the load

Note: If the manufacturer specifies that the energy absorber may be connected to the anchor point instead of the Dring of the full body harness, you should clarify whether this could mean higher impact forces on the user. The test house then specifies together with the manufacturer which further drop tests on edges, e.g. with a different edge radius or material, are to be carried out.

To 2: dynamic/static strength

Two drop tests each are performed with same test set-up as described in 1.). The drop height of the falling mass is, however, 2 m above the fall edge. A new test sample maybe used for each drop test.

For each of the 2 tests, if the product is too short to be tested (see second preliminary remark), the manufacturer can supply a longer test specimen, so that the lanyard will hit the edge from the start till the end

The arresting distance and braking force are not measured.

The lanyard/energy absorber must withstand the load

The minimum breaking force is then tested for the same test piece immediately after the drop test. This is carried out through a static test over a period of 3 minutes with a force corresponding to 3-times the nominal load, though at least 4.5 KN.

The lanyard/energy absorber must withstand the load

Additional information on marking:

- Note that a horizontal use of the lanyard with energy absorber is possible (possibly pictogram).
- Note that the lanyard/energy absorber should not be stressed over sharp edges.

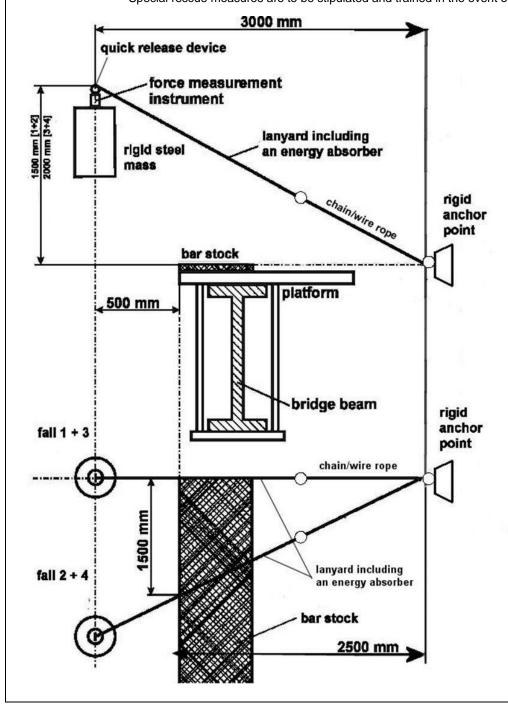
Additional information in the instructions for use:

• Note: the lanyard/energy absorber has been successfully tested for horizontal use and a resulting simulated fall over an edge.

A steel bar with a radius of r = 0.5 mm with no burs was used in these tests. On the basis of this test, the lanyard with energy absorber is suitable for use over similar edges such as rolled steel profiles, wooden beams or a clad, rounded proof parapet. Notwithstanding this test, the following must be taken into account with a horizontal or oblique use where there is a risk of falling over an edge.

- 1. If the risk assessment carried out before the start of work shows that the fall edge is a particularly "sharp" and/or
- "not free from burs" edge (e.g. unclad proof parapet or sharp concrete edge), then o corresponding precautions must be taken before the start of work to rule out the risk of falling over the edge or
 - o an edge protection should be mounted before the start
 - of work or o you should contact the manufacturer.
- 2. The anchor point for the lanyard/energy absorber may not be below the user's stand level (e.g. platform, flat roof.
- 3. The deflection at the edge (measured between the two legs of the fastener / mobile guide) must be at least 90°.
- 4. The necessary free space beneath the edge.
- 5. The lanyard must always be used in such a way that there is no slack rope. If the lanyard is equipped with a length adjustment device, this may only be used if the user is not moving in the direction of the fall edge.

- 6. To prevent a pendulum fall, the working area and lateral movements from the median axis on both sides should be limited in each case to a max. of 1.50m. In other cases, no individual anchor points should be used but rather a Class C or D anchor device pursuant to EN 795:2012.
- 7. Note: If the lanyard/energy absorber is used with a Class C anchor device pursuant to EN 795:2012 with a horizontal flexible anchor line, the deflection of the anchor device must also be taken into account when determining the necessary clearance beneath the user. Pay attention to the details in the instructions of use of the anchor device.
- 8. Note: After a fall over an edge there is a risk of injuries during capture if the falling person knocks against parts of the building or construction.
- Special rescue measures are to be stipulated and trained in the event of a fall over an edge.





PPE-R/11.075 Version 1

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Number of pages: 3		Approval stage :	Approved on :		
Origin : Vertical Group	11 'Protection against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 27.12.2018 29.11.2019		
Question related to		☑ EN/prEN: EN 353-2:2002	☐ Other:		
Article:	Annex:	Clause:			
Key words: EN 353-2, horizontal use; guided type fall arrester including flexible anchor line, edge test					
Question:					
What tests are necessar	ary for guided type fall arrester including flexit	ole anchor line intended for horizontal use o	ver an edge?		

Solution:

Preliminary remarks:

The test principles relate to the optional testing of the partial system guided type fall arrester including flexible anchorage line. The anchor point of this partial system may not be lower than the stand level of the user. An angle (measured between the two legs of the fastener / flexible anchorage line) of at least 90° is assumed for the deflection on an edge.

During horizontal use it is likely that the function of the guided type fall arrester may be affected when the user falls, for example through catching / blocking on edges or other structural features. This is why only devices that use an energy absorber as connection between the arrester and user should be used horizontally.

General requirements:

EN 353-2:2002

Additional requirements:

- 1. Dynamic performance with horizontal arrangement and stress over an edge
- 2. Dynamic and static strength with horizontal arrangement and stress over an edge

Additional test to be performed:

Preliminary remarks: A drawn square steel bar pursuant to EN 10278:1999 (Material C 45 K / E 335 GC (ST60) pursuant to EN

10025) is to be used as a rest edge for the dynamic tests. The minimum dimensions of the steel bar must be 10×70 mm, the edge radius 0.5 mm. The drop weight (steel weight analogous to EN 364:1992) must

correspond to the nominal load, though at least 100 kg.

The nominal load to be used shall be the same as that claimed according to RfU 11.062 if applicable

To 1: dynamic performance /static strength

The partial system is dynamically stressed in a horizontal arrangement, as specified by the manufacturer, analogous to the test plan (Enclosure) through two drop tests. A new test sample may be used for each drop test.

One drop test is carried out at right angles to the edge, another with a lateral offset of 1.50m. The falling weight is dropped from a height of 1.50m and at a horizontal distance of 30cm from the edge. The braking force is measured at the mass and the arresting section determined.

- The braking force determined at the mass nay not exceed 6 kN
- The partial system must withstand the load

Note: If the flexible anchorage line is <u>not</u> stressed on the edge on account of the length of the connection, for example, a further set of tests should be performed. The distance between the falling weight and edge should be enlarged to a maximum of 50 cm so that the flexible anchorage line is st4rssed at the edge. If the flexible anchorage line is still not stressed at this max. distance the requirements have been fulfilled."

To 2: dynamic/static strength

Two drop tests each are performed with same test set-up as described in 1.). The drop height of the falling weight is, however, 2 m above the fall edge. A new test sample maybe used for each drop test.

The arresting section and braking force are not measured.

The partial system must withstand the load

The minimum breaking force is then tested for the same test piece immediately after the drop test. This is carried out through a static test over a period of 3 minutes with a force corresponding to 3-times the nominal load, though at least 4.5 KN.

The partial system must withstand the load

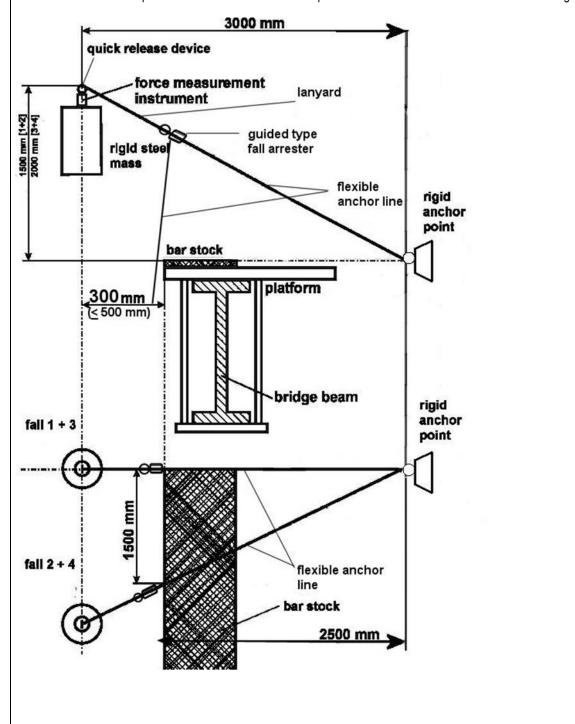
Additional information on marking:

- Note that a horizontal use of the guided type fall arrester including flexible anchorage line is possible (possibly pictogram).
- Note that the partial system should not be stressed over sharp edges.

Additional information in the instructions for use:

- Note: the guided type fall arrester including flexible anchorage line has been successfully tested for horizontal use and a resulting simulated fall over an edge.
 - A steel bar with a radius of r = 0.5 mm with no burs was used in these tests. On the basis of this test, the equipment is suitable for use over similar edges such as rolled steel profiles, wooden beams or a clad, rounded proof parapet. Notwithstanding this test, the following must be taken into account with a horizontal or oblique use where there is a risk of falling over an edge:
 - 5. If the risk assessment carried out before the start of work shows that the fall edge is a particularly "sharp" and/or "not free from burs" edge (e.g. unclad proof parapet or sharp concrete edge), then
 - corresponding precautions must be taken before the start of work to rule out the risk of falling over the edge or
 - an edge protection should be mounted before the start of work or
 - you should contact the manufacturer.
 - 6. The anchor point for the flexible anchorage line may not be below the user's stand level (e.g. platform, flat roof).
 - 7. The deflection at the edge (measured between the two legs of the fastener / flexible anchorage line) must be at least 90°.
 - 8. The necessary free space beneath the edge

- 9. The partial system must always be used in such a way that there is no slack rope. The length may only be adjusted if the user is not moving in the direction of the fall edge
- 10. To prevent a pendulum fall, the working area and lateral movements from the median axis on both sides should be limited in each case to a max. of 1.50m. In other cases, no individual anchor points should be used but rather a Class C or D anchor device pursuant to EN 795:2012.
- 11. Note: If the partial system is used with a type C anchor device pursuant to EN 795:2012 with a horizontal flexible anchorage line, the deflection of the anchor device must also be taken into account when determining the necessary clearance beneath the user. Pay attention to the details in the instructions of use of the anchor device.
- 12. Note: After a fall over an edge there is a risk of injuries during capture if the falling person knocks against parts of the building or construction.
- 13. Special rescue measures are to be stipulated and trained in the event of a fall over an edge.





Version 02

RFC	OMN	/FND	ATIO	N FO	R USE

RECOMMENDATION TO COL					
Number of pages: 1			Approval stage :	Approved on :	
Origin : Vertical Group 1	1		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	14.10.2020 01.10.2021 18.11.2022	
Question related to	PPE Regulation PPE Guidelines	⊠ EN/prE 364:1992	EN: EN353-2:2002, EN	Other:	
Article:	Annex:	Clause:			
Key words:					
Guided type fall arrester, dynamic performance, non integral energy absorber, non integral lanyard					
Question:					
How to assess the dynamic performance of an EN 353-2 device that includes a non integral energy absorber or a non integral lanyard?					
Solution:					
An EN 353-2 device shall be tested in accordance with EN 364 Clause 5.5.2 or Clause 5.8.2 both with each energy absorber and/or lanyard that can be used in the flexible anchor line and/or connected to the guided type fall arrester and without any energy absorber or lanyard, as specified by the manufacturer in its instruction for use.					



PPE-R/11.083
Version 1

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 27.12.2018 29.11.2019
Question related to PPE Regulation PPE Guidelines	⊠ EN/prEN: EN 355	Other:
Article: Annex:	Clause:	
Key words:		
Samples, test order		
Question:		
Which sample shall be used to carry out the dynamic performance o	n EN 355:2002?	
Solution:		
The dynamic performance test shall be carried out on a new sample		
The 15kN static strength test shall be carried out after the dynamic p	erformance on the same sample	
A new sample shall be used for preloading test		



Version 02

Number of	of pages: 1		Approval stage :	Approved on :
Origin : V	ertical Group 11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	13/09/2023 07/12/2023 26/05/2024
Question	related to PPE Regulation PPE Guidelines	•	N: EN 360 :2002, EN	☐ Other:
		364 :1992		
Article:	Annex:	Clause: 5.1	1.2.3 (EN 360:2002), 5.11.6.2 (EN 364:1992)
Key word	s:			
Retractab	ole type fall arrester, locking test			
0				
Question:			dence with 5 44 C O of FN 2C4	.40000
	level of load increasing is required by carry out the locking	•		1992?
	he device pass the test if it locks and unlocks several times	s belore the r	nass is neid?	
3- What s	should be the maximum locking distance?			
Solution:				
1-	The minimum mass shall be 5kg but this can be increased maximum of 30kg. Note: the test mass can be a rigid steel mass or a sandba		ements to that mass which ope	rates the device up to a
2-	The test mass must be held after the first locking. If the demass is held after the first locking with a maximum of 30kg the test has failed.			
3-	The maximum locking distance must be less than 1m.			



Version 02

Number of pages: 1		1	Approval stage :	Approved on :
Origin : Vertical Gro	up 11		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	14.10.2020 01.10.2021 18.11.2022
Question related to		⊠ EN/prEN	: EN 360:2002	☐ Other:
Article:	Annex:	Clause:		
Key words: Retractable type fall	arrester, fall factor, locking feature			
Question:				
How to assess retract locking feature?	ctable type fall arresters (EN 360 type) claiming th	ne possibility t	o go above the device and/or i	ncluding a retraction
Solution:				
with EN 360 and fol	I arresters claiming the possibility to go above the lowing additional requirement: h of the retractable type fall arrester including con			feature shall comply
2 Requirement:	nance test (with locked retraction feature if applications F < 6kN, H < 2L + 1.75 m and H_{max} < 5.75m gth of the retractable type fall arrester including co	•	rimum extracted length and a f	all factor
the locking mech Requirement: F<	nance test (with locked retraction feature if applica nanism) 6kN, H < L + 1.75 m and H _{max} < 3.75m gth of the retractable type fall arrester including co	·	maximum extracted length and	d fall factor 2 (to test
	est on the lanyard webbing only (a test specimen of irement: 22kN for 3 minutes.	can be submit	ted by the	
Instructions for use a	and marking according (clearance below the user	etc.)		



PPE-R/11.087 Version 1

Number of pages: 1		Approval stage :	Approved on :
Origin: Vertical Group 11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 27.12.2018 29.11.2019
Question related to ⊠ PPE Regulation ☐ PPE Guidelines	⊠ EN/prE	N: EN 360 :2002	Other:
Article: Annex:	Clause:		
Key words:			
Removable lanyard, non retractable termination lanyard			
Question:			
1/ Is it allowed to add a removable lanyard to a retractable fall arrest	er end termi	nation?	
2/ What is the maximum permissible permanently non retractable ter	mination len	igth of a retractable fall arrester	?
Solution: 1/ No, the retractable fall arrester shall be made of one continuous p	iece of retra	ctable lanyard	
2/ The permanently non retractable termination (including e.g. ener mm.	gy absorber	, handling, loop, integral conne	ctor,) shall not exceed 600



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Version 3

RECOMMENDATION FOR USE			
Number of pages: 2 Approval stage :			Approved on :
Origin : Horizontal Comm	ittee	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	13/09/2023 07/12/2023 26/05/2024
Question related to S	PPE Regulation PPE Guidelines	☐ EN/prEN: any EN on fall arrest if relevant	Other:
Article:	Annex:	Clause:	
Key words:			
Rope / Knots, technique,	end user, friction knots		
subsequent training by th	e end user. dies assess products that require techniqu	n (such as connecting various components) a ues to be implemented by the end user (e.g;	
Examples A termination (e.g.; figure of eight knot for arborist, mountaineering, caving) that does not impact the construction of a rope can be made by the end user. A termination that impacts the construction (e.g., spliced end on a rope) cannot be made by the end user. It shall be certified and under C2/D production control. PPE systems against falls from a height that include friction hitches, which might need to be adjusted by the end user, can be certified as a whole system: see the following test procedure and requirements for friction hitches. Note: the manufacturer can allow the end user to replace a component as a spare part (e.g. ventral attachment using a knot on an arbor harness) Friction hitches included in a PPE systems against falls from a height Note: Examples for friction hitches are: prusik, valdotain-tresse, distel, michoacan, machard, Since there are a lot of different possible variations of these knots (e.g. 4-coils or 5-coils), there is no list of allowed friction hitches in the document. 1. General requirements The manufacturer must define all intended modes of use and must refer to EN standards (if applicable). All system components must be finished and ready-to use products with prefabricated terminations.			user. It shall be certified by the end user, can using a knot on an arborist wed friction hitches in this

2. Testing

The tests should be carried out according to the intended use of the whole system (e.g. EN 358:2018, EN 795:2012, EN 12841:2006 ...). If there is no applicable standard for the whole system, the tests should be carried out according to a risk assessment which considers: the intended use (manufacturer's instructions and information), the Essential Health and Safety Requirement of the PPE Regulation, test procedures from other EN standards and applicable RfUs (e.g. maximum user weight).

Test shall include a grab test according to EN 12841:2006 – 4.3.3 (5.5.2)

Test should include static test(s) (to assess the resistance of the combination) and dynamic test(s) (to assess the behaviour of the combination).

All combinations of different knots and knot materials ('lanyards') on different guiding ropes shall be tested.

Example for a friction hitch on a guiding rope the following test protocol would apply:

- Guiding rope A + Lanyard A as prusik
- Guiding rope A + Lanyard A as distel
- Guiding rope B + Lanyard A as prusik
- Etc...

3. Marking

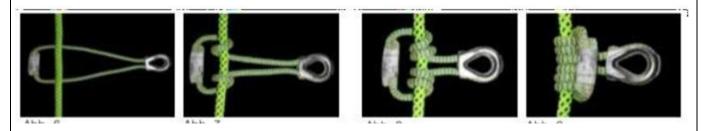
Each load bearing component that might be removable must have a marking, which states the correspondence to the whole system. Example: 'Component name 1' part of 'system name', 'Component name 2' part of 'system name', etc.

4. Manufacturer's instructions and information

The manufacturer's instructions and information must show and explain all possible attachments of the system.

If parts can be replaced, or if it is very likely that they will be replaced by the end user, a detailed description with pictures must be included in the Instructions for use

Example for prusik (3-coil):



Every tested and approved combination of guiding rope and friction hitch must be explained in manufacturer's instructions and information. *Note: The length of the lanyard (for the friction hitch) is very important for the functionality and performance of the whole system.*

The setup of all approved friction knots must be explained in the instructions for use.

Every system component must be identifiable.

There must be a described functional test in the manufacturer's instructions and information to test the performance of the friction knot (which movement is allowed; in which directions the knot should not move etc)

There must be a warning to check the reliable grab function of the friction hitch before every use

Status: September 2024



PPE-R/11.093 Version 1

RECOMMENDATION FOR USE

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Gro	up 11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 27.12.2018 29.11.2019
Question related to		⊠ EN/prE	N: EN 341 :2011	☐ Other:
Article:	Annex:	Clause: art	4.4.1/4.4.2	
Key words: Descender device, t	emperature test			
Question:				
How to understand a	articles 4.4.1 and 4.4.2 of EN 341:2011 as there	are some ur	nclear requirements?	
Solution:				
4.4 Function				

4.4.1 Classes A, B and C

When tested in the dry condition in accordance with 5.4.1, none of the parts of the descender device handled by the user to control the descents shall develop a temperature higher than 48°C during the descents.

When tested in accordance with 5.4.1, 5.4.2 and 5.4.3:

- 1 it shall be possible to maintain a continuous descent velocity between 0,5 m/s and 2 m/s;
- I in the case of manually-operated descender devices, the velocity shall not exceed 2 m/s when the control device is in a hands-off or any

If the manufacturer claims that the descender device can be used at temperatures lower than -4°C, it shall be possible to maintain a continuous descent velocity between 0.5 m/s and 2 m/s when tested in very cold conditions in accordance with 5.4.4.

4.4.2 Class D

When tested in the dry condition in accordance with 5.4.1:

I none of the parts of the descender device handled by the user to control the descent shall develop a temperature higher than 48°C during the descent.

- 1 it shall be possible to maintain a continuous descent velocity at a maximum of 2 m/s:
- I in the case of manually-operated descender devices, the velocity shall not exceed 2 m/s when the control device is in a hands-off or any panic-grab position;

If the manufacturer claims that the descender device can be used in wet conditions, it shall be possible to maintain the descent velocity at a maximum of 2 m/s when tested in the wet conditions in accordance with 5.4.2.

If the manufacturer claims that the descender device can be used in the temperature range of (-4 to +2) °C, it shall be possible to maintain the descent velocity at a maximum of 2 m/s when tested in the wet and cold conditions in accordance with 5.4.3.

If the manufacturer claims that the descender device can be used at temperatures lower than -4°C, it shall be possible to maintain a continuous descent velocity at a maximum of 2 m/s when tested in the very cold conditions in accordance with 5.4.4.



CO-ORDINATION OF NOTIFIED

PPE-R/1	1.094
Version:	3

X PPE X	CO-ORDINATION OF	NOTH IED	
* * *	BODIES PPE Regulation	on 2016/425	
* * *	RECOMMENDATION	FOR USE	
Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Grou	ip 11 'Protection against Falls from a		
Height'			23/11/2022
			31/05/2023
			31/01/2024
Question related to		EN/prEN: EN 58:2018, EN 354:2010	Other:
 Article:			
Article.	Annex: Clause	.	
Key words:			
Pole choker, work po	ositioning lanvard		
	oneg, a		
Question:			
	okers (*) be assessed?		
riow oriodia pole orio	Mero () be descessed:		
Solution:			
Pole chokers have to	be assessed as work positioning lanyard	according to EN 358:2018 or E	N 354:2010.
Dynamic resistance diameter)	tests shall be carried out using a represent	ative pole (at least minimum ar	nd maximum
,	shall require that the user needs a back-up	system when using the pole ch	oker devices
• •	ble adjustable webbing lanyard designed to	be used for climbing on	
wooden poles Exam	ple of Pole Choker:		
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PPE-R/	11	.095
Version	1	

Number of pages: 1	Approval stage :	Approved on :		
Origin : Vertical Group 11 'Protection against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 27.12.2018 29.11.2019		
	N: EN 795:2012, TS 3, EN 892:2012	Other:		
Article: Annex: Clause: A	rt. 5.2.1. of EN 795 and Art. 5.1	of TS 16415		
Key words: Anchor device, free fall distance, test lanyard, rigid test mass				
Question: What kind of test lanyard or test mass can be used to test anchor devices?				
Solution: The test lanyard shall conform to following: 1. Made of a single mountaineering rope conform to EN 892 with an impact force of (9 ± 1,5) kN in the first dynamic test 2. Length of minimum 1m and maximum 2m 3. Stitched or made of hand knots (e.g. bowline)				
The test mass shall be of minimum 100kg and maximum 200kg				



PPE-R/11.096 Version 1

Number of pages: 1	Approval stage :	Approved on :
Origin: Vertical Group 11 'Protection against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 27.12.2018 29.11.2019
Question related to PPE Regulation PPE Guidelines	⊠ EN/prEN: EN 795:2012, EN 353-2 :2002, EN 360 :2002	☐ Other:
Article: Annex:	Clause: Art. 7 – i) – iii)	
Key words:		
Anchor device, type C, instructions for use, EN 360, EN 353-2		
Question:		
What shall the notified body require if the manufacturer claims on its i retractable fall arrester (EN 360) or guided type fall arrester including		evice can be combined with
Solution:		
In application of article 7 point i) $-$ iii), the manufacturer shall show to type C anchor device and each claimed models of EN 360/ 353-2 PP $$		s (e.g. tests) combining the
Instructions for use shall at least:		
1- List all models/references of these EN 360 and/or EN 353-2	2 that can be used on the type C anchor de	evice.
 Include specific warning about necessary clearance below to C anchor device. 	• • • • • • • • • • • • • • • • • • • •	



PPE-R/11.098 Version 1

Number of pages: 1	Approval stage :	Approved on :	
Origin: Vertical Group 11 'Protection against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 27.12.2018 29.11.2019	
Question related to PPE Regulation PPE Guidelines	☑ EN/prEN: EN 795:2012	Other:	
Article: Annex:	Clause:		
Key words:			
Anchor device, type B, lanyard			
Question:			
Is there any limitation of the length of anchor devices type B made of	lanyard (textile, wire rope)?		
to along any miniation of the longer of anonor devices type 2 made of	tarryara (toxato, who repo,).		
Solution:			
No, at least because in some cases the distance between the structu limitation of the length of anchor devices type B made of lanyard.	re and the user is important and cannot be	reduced, there is no	
But as these devices could be misused (e.g. climbing above the low attachment) they shall conform to following complementary requirements:			
1- Marking: the end attachment (or both ends if both can be used as tail) shall show a special warning to forbid to climb above the attachment (to avoid free fall) and to require to stay below the attachment (to avoid pendulum effect). Drawings can be used			
2- Instructions for use: shall include a warning about the risk of failure of the product in case of climbing above the attachment point and to require to stay below the attachment point.			



PPE-R/11.103	
Version 1	

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	✓ Vertical Group 2:	1.04.2018
		7.12.2018
		9.11.2019
	EN/prEN: EN 795:2012, 16415:2013	Other:
Article: Annex: Cla	use:	
Key words:		
Anchor device, static strength test, material, durability		
Question:		
Following EN 795:2012 and TS 16415:2013 (articles 5) static strength terwith any load bearing element or component made from plastics?	st methods, which static load shall be app	lied for anchor devices
Note: for instance, extract of EN 795:2012 article 5.3.4: apply a static load of (12 component is made from non-metallic material(s) and where evidence of durability		
Solution:		
For plastics, as evidence of durability is usually not available, the static simin	rength test should be carried out at (18 +	1/0) kN for (3 +0,25/0)



PPE-R/11.104 Version 1

RECOMMENDATION FOR USE

Number of pages: 3			Approval stage :	Approved on :	
Origin : Vertical Grou	up 11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 27.12.2018 29.11.2019	
Question related to	☑ PPE Regulation ☐ PPE Guidelines	12278:200	N: EN 362:2005, EN 7, EN 795:2012, EN 3, prEN 15567-1	Other:	
Article:	Annex:	Clause:			
Key words:					
Ropes courses, wire rope, Tyrolean, pulley, shuttle					
Question:					
How to assess shuttl	les that are designed for use on wire rope for Ro	pe Courses	?		
Solution:					_
Note 1: shuttles can	Note 1: shuttles can be used to protect against fall from a height when used on herizontal wire rope or can be used for Turclean activity.				

Note 1: shuttles can be used to protect against fall from a height when used on horizontal wire rope or can be used for Tyrolean activity Note2: a shuttle can include a pulley

Shuttles shall conform to following procedure:

A- Scope of use

Shuttle for personal use ropes courses on horizontal or inclined ('zip wire') wire rope.

Shuttles can be of the following types:

- -continuous belay system shuttles in ropes courses with or without pulleys
- -individual belay system shuttles in ropes courses with or without pulleys

B- Applicable standard

Following EN standards have been taken into account: EN 795, EN 12275, EN 12278, EN 362 and EN/prEN 15567-1

C- Design requirements

General:

1. The shuttle shall have a means of attachment of a connector which is large enough to accommodate a pin of diameter 12 mm (EN 12278) or a means of attachment of a sling.

Nota: the shuttle can include a removable or an integrated (unremovable) sling.

If removable, the sling shall be approved for Rope courses

If integrated, the complete device (shuttle with integrated sling) shall conform to this sheet

- 2. All edges of the shuttle, which come into contact with fingers, shall be free from burrs and the like which could cause irritation or injuries (EN 12278)
- 3. If there is any sheave axle, it shall be secured by nuts or screws. The nuts and/or screws shall be locked and secured by means other than friction (EN 12278)
- 4. The design shall avoid any stable position than the ones indicated on instructions for use. If not, tests shall be repeated for any additional position
- 5. If the shuttle is made of a pulley that can also be used as pulley against fall from a height on textile rope, it shall also be conform to EN 12278

Specific requirement for continuous belay shuttles:

6. When in use, the user cannot detach the shuttle from the wire rope without a tool.

Specific requirement for individual belay shuttles:

7. If the shuttle can also be used as connector against fall from a height, it shall be conform to EN 12275 or EN 362. Note: if changeover of connector is not on a place where you are of safe balance (platform), then connectors have to be with automatic gate locking device

D- Tests requirements

1. Only for shuttles with pulleys: function test under load (EN 12278)

This test shall be carried out on the maximum diameter of wire rope marked on the shuttle.

The shuttle is placed on a test device designed to reproduce the real loading (with maximum deflection allowed on instructions for use)

Apply a force of F = (2 ± 0.05) kN and check that the shuttle is capable to rotate ten times in either direction under this force

2. Only for continuous belay system shuttles; Deformation test (derived from EN 15567)

This test shall be carried out on both the maximum diameter of wire rope marked on the shuttle and on the minimum one Apply a force of F = (6 ± 0.1) kN for 3 minutes in the foreseeable load direction.

Requirements:

Elastic deformation: gap of shuttle shall not be more than (Wire rope minimum diameter)-2 mm.

Permanent deformation: no visible permanent deformation of the shuttle

3. For all shuttles: Dynamic strength test (part of EN 795 type B)

3.1 Principle and test samples

The shuttle is dynamically tested on a steel tube.

- > Test lanyard shall be the ones defined in EN 795:2012 [2m long EN 892 single rope, impact force (9±1,5) kN]
- > Type of support: the support shall be a steel tube of the maximum claimed wire rope diameter.

Note: in case of any device on which a continuous belay system shuttle could pass in a risk of fall area (e.g.: junction element, switch element,...), test shall be repeated on adequate fixation

3.2 Test structure calibration pre-test

Using a rigid test mass of 100kg, determine the free fall distance 'h' of the mass required to generate a fall arrest load of (9 0,5/+0) kN by carrying out a test using a rigid anchor point fixed to a rigid structure by the test lanyard. Whatever is the test structure, the free fall distance may need to be adjusted to achieve the load of 9 kN.

3.3 Test method

The shuttle is installed on the steel tube

The rigid test mass is connected to the shuttle by the test lanyard

Move the rigid test mass downwards until the test lanyard holds the mass. Then raise the rigid test mass to the free fall distance 'h' determined in 3.2 and hold it at a maximum of 300 mm horizontally from the anchor point.

Release the rigid test mass and check requirements

3.4 Requirement

The shuttle shall not release the rigid test mass

Status: September 2024

4. For all shuttles: Static strength test

The shuttle is statically tested on a steel tube.

- > Type of support: the support shall be a steel tube of the maximum claimed wire rope diameter.
- > Principle: application of a strength of F=15kN during 3 minutes
- > Requirement: the shuttle shall not break

Note: in case of any device on which a continuous belay system shuttle could pass in a risk of fall area (e.g.: junction element or switch element), test shall be repeated.

5. For all shuttles: Corrosion resistance (EN 795)

> Expose representative samples of the metal parts of the shuttle to the neutral salt spray test in accordance with EN ISO 9227 for a period of $(24\ 0,5/0)$ h. Dry for $(60\ 5/0)$ min at $(20\ \pm\ 2)$ °C. Then repeat the procedure, so that the shuttle is subjected in total to $(24\ 0,5/0)$ h exposure and $(60\ 5/0)$ min drying plus another $(24\ 0,5/0)$ h exposure and $(60\ 5/0)$ min drying. Examine the device and verify that it meets the requirements of 4.2.1. When it is necessary to gain visual access to the internal elements, dismantle the shuttle

> Requirement: there shall be no corrosion of the metal parts material that would affect their functional operation, e.g. the correct operation of moving elements. The presence of tarnishing and white scaling is acceptable

E- Marking requirements

- 1. Trade mark of the device
- 2. Reference to instructions ('I' in the book)
- 3. Wire rope diameter range

Note: no EN marking related to this use

F-Instructions requirements

Beyond usual requirements (name and address of the manufacturer or its representative, marking signification, maintenance, cleaning, life span, effect of chemical agents, effect of humidity and freeze, storage, transport, ...):

- Scope of the device and how to use it
- 2. Wire rope compatibility: types of wire rope (at least diameter range, material and construction) on which the shuttle can be placed and a clear sentence that the shuttle shall not be used with another type of wire rope
- 3. Connectors and lanyard compatibility: how to choose them
- 4. Continuous belay system shuttles: how to place the device on the safety rope
- 5. Continuous belay system shuttles: wear and tear discard criteria for the gap (control value in mm) as applicable
- 6. Necessary clearance for the device
- 7. Shuttles with pulley: Speed limitations, brake recommendations (limits to prevent damage)

If relevant: instruction requirement of EN 12278, EN 12275, EN 362, EN 795

Status: September 2024



PPE-R/11.105 Version 1

Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 27.12.2018 29.11.2019
Question related to PPE Regulation PPE Guidelines	⊠ EN/prE	N: EN 341 :2011	Other:
Article: Annex:	Clause: art	icle 4.5 a)	
Key words:			
Descender device, classes			
Question:			
What are the requirements for the descent energy test on classes A, E	3 and C?		
Solution:			
For class A: the descender device shall resist a descent energy test of	f 7,5 10 ⁶ J		
For class B: the descender device shall resist a descent energy test of			
For class C: the descender device shall resist a descent energy test of	f 0,5 10 ⁶ J		



PPE-R/11.106

Version 02

Approval stage :	Approved on :
✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	07.06.2021 01.10.2021 18.11.2022
EN: EN 360 :2002	☐ Other:
of prEN 360 (TC160/WG2 doc l tractable lanyard(s) and allow th tion of the retractable lanyard or n and any untwisting shall be un he RTFA. Check that the lanyard	e lanyard(s) to fully the RTFA housing assisted and
t	Vertical Group Horizontal Committee EU PPE Expert Group EN: EN 360 :2002 of prEN 360 (TC160/WG2 doc latractable lanyard(s) and allow the tion of the retractable lanyard or and any untwisting shall be un



PPE-R/11.108 Version 1

	RECOMMENDA	ATION FO	K USE	
Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 1	1 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 27.12.2018 29.11.2019
Question related to 🗵	PPE Regulation PPE Guidelines	⊠ EN/prE TS 16415:	N: EN 795:2012, 2013	Other:
Article:	Annex:	Clause:		
Key words:				
Anchor device, anchor p	oints			
Question:				
	12 and TS 16415:2013 no text describes ho erent attachment points. For instance if the			
Solution:				
For an anchor device wit	th 1 anchor point :			
Carry out the test accord	ling to EN 795 using a 100 kg test mass			
For an anchor device wit	th two (2) anchor points:			
	• • •	mass conne	cted to the likely weakest point	if different
Carry out the dynamic test according to EN 795 using a 100 kg test mass connected to the likely weakest point if different Carry out the dynamic test according to TS 16415 by connecting the anchor points together using a suitable connecting element (*) and test together using a 200 kg test mass.				
Carry out the static test a	according to EN 795. The static strength is a	applied to the	e strength to the likely weakest	point if different
Carry out the static test according to TS 16415 by connecting the anchor points together using a suitable connector (*) and test together.				
(*): example of suitable connecting element: a wire rope lanyard (each end of which is connected to one of the 2 anchor points), and supporting a pulley through which a load is applied, ensuring an equal load is applied to each anchor point.				
For an anchor device wit	th three (3) or more anchor points:			
As for 2 anchor points bu	ut for TS 16415 test the third (3rd) and any a	additional an	chor points test each individuall	y.



PPE-R/11.109 Version 1

Approval stage :	Approved on :			
✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 27.12.2018 29.11.2019			
N: EN 795:2012, 2013	Other:			
quirements when low values are	e measured?			
1- Force measurement If the load at the extremity is less than 3 kN then the requirement of +/- 20% does not apply				
% does not apply				
	Vertical Group Horizontal Committee EU PPE Working Group SN: EN 795:2012, 2013 quirements when low values are			



PPE-R/11.110	
Version 1	

Number of pages: 1	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	 ✓ Vertical Group ✓ Horizontal Committee ✓ EU PPE Working Group ✓ 27.12.2018 ✓ 29.11.2019
	EN/prEN: EN795:2012,
Article: Annex: Cla	ause:
Key words: Anchor device, type C, energy absorber	
Question: How to test the performance of a Type C system that has only one energy	y absorber?
Solution: Two dynamic tests have to be carried out:	
Test 1: as described in EN 795 art. 5.5.3.2.2.1 for type C which incorporanchor point at the end of the longest span that meets with the shortest and loading) don't apply.	
Test2: as described in EN 795 art. 5.5.3.2.2.1 for other type C: "position Requirements of article 4.4.3.3 apply.	the mobile anchor point at the centre of the longest span".



PPE-R/11.111 Version 1

Number of pages: 1	Approval stage : Approved on :
Origin: Vertical Group 11 'Protection against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group✓ 29.11.2019
Question related to PPE Regulation PPE Guidelines	☑ EN/prEN: EN 795:2012,☐ Other:TS 16415:2013
Article: Annex:	Clause:
Key words: Anchor device, type C, type A, post, fixing element	
Question:	
When they can be installed together, where is the limit between type	
1- When testing a Type C, shall, for instance, post or fixing element And if so, do Type C have to be tested with all types of post/fixing el	
2- If the post/fixing element is removable from the type C shall it be	tested as Type A?
Solution:	
Two dynamic tests have to be carried out:	
1- Yes, all extreme combinations of type C + post/fixing element that (example of combination that don't need to be tested: for a same de type C).	t are designed to be installed with the type C have to be tested. sign/material/, only shortest and longest posts shall be tested with
The specification of all post/fixing elements, including design, size a manufacturer and listed in the report	nd reference, shall be included in the information supplied by the
2- If the post/fixing element can be used as an anchor point without	the Type C then it should be tested as a Type A device.



PPE-R/11.112 Version 1

Number of pages: 1	Approval stage :	Approved on :		
Origin : Vertical Group 11 'Protection against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 27.12.2018 29.11.2019		
	orEN: EN 795 :2012, 15 :2013	Other:		
Article: Annex: Clause:				
Key words: Anchor device, type C, authorized people, lifeline, span				
Question: Can the number of authorized people on the Type C lifeline be different from	the number on one span?			
Solution: No, they have to be the same. One span shall be tested with the maximum at	uthorized number of users on the I	ifeline		



PPE-R/11.113	
Version 1	

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	Horizontal Committee 27	.04.2018 .12.2018 .11.2019
	☑ EN/prEN: EN 795:2012, ☐ S 16415 :2013	Other:
Article: Annex: (Clause:	
Key words: Anchor device, dynamic test, permanent deformation		
Question: Note: for dynamic test on anchor devices, the test mass shall be first to height of fall while it can lead to permanent deformation in the anchor of How to avoid unexpected permanent deformation that could occur on or mass?	device.	
Solution: Test shall not be carried out on an anchor device that has been perma	nently deformed before the test by the test m	ass suspension (100kg
or 200kg as in TS16415).	,	, , ,
Components that could deform can be locked or replaced by a rigid ele	ement.	
Note: to avoid insufficient preloading of the test lanyard, stitched test la	inyard can be used (see VG11 Recommenda	ation for use 11.095)



PPE-R/	11.114
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Version 3

REC	OMI	MEND	ATIC	N F	OR	USE
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RECOMMENDA				
Number of pages: 1	Approval stage :	Approved on :		
Origin : Vertical Group 11	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	07.06.2021 01.10.2021 18.11.2022		
Question related to PPE Regulation PPE Guidelines	☐ EN/prEN:	☐ Other:		
Article: Annex:	Clause:			
Key words: load sharing device, rigging plates, use for work, industry, mountained	ering,			
Question: As there is no applicable EN standard for these devices, how to asserprotection for industry or mountaineering?	ss load sharing devices (e.g., rigging plates) used by a person for fall		
Solution:				
Use UIAA 130:2021				



PPE-R/11.115 Version 1

RECOMMENDATION FOR USE

		RECUIVINE	ENDATION FO	IK USE	
Number	of pages: 2			Approval stage :	Approved on :
Origin : \	Vertical Group 11 'F	Protection against Falls from a Heig	ıht'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 27.12.2018 29.11.2019
Question	n related to 🛛 PP	E Regulation PPE Guidelines	☐ EN/prE	EN:	Other:
Article:		Annex:	Clause:		
Key wor	ds:				
Clamps,	rescue, evacuation	, lifting, lowering			
Question How sha and eval	all clamps that are c	laimed to be used in conjunction w	ith devices for the	e rescue or evacuation lifting and	d lowering process be tested
Solution	:				
Require	ments:				
1.		static strength test and dynamic te of an energy absorber, lanyard of			
2.	Construction: Construction of th	e rescue / evacuation clamp has to	b be conform with	clauses 4.1.1, 4.1.2, 4.1.4 and	4.1.5 of the EN 567:2013
3.	Function Check the function	n by lifting and lowering of a mass	•	minimum and maximum rated fo	•

Check the function by lifting and lowering of a mass equivalent to the minimum and maximum rated for three times over a height of 1 m. Hold the mass for 3 minutes after each lifting and lowering process. Repeat the test with conditioning to wet and cold and to very cold in accordance with EN 354.

4. Static strength for the rescue / evacuation clamp including the anchor line/lanyard

The rescue / evacuation clamp including the lanyard/anchor line has to withstand a load of 6kN for 3 minutes (test procedure according to EN 354). Permanent extension of max. 25 mm is accepted.

5. Static strength for the rescue / evacuation clamp

The rescue / evacuation clamp has to withstand for 3 minutes a load of 12kN on a rigid rod bar instead of the anchor line/lanyard (test procedure according to EN 353-2:2014 2002 or EN 12841:2006)

6. Dynamic strength

Requirement and procedure in accordance with EN 795:2012 clause 5.2.1.4 (9kN without integrity test) and 5.3.3 by using a lanyard/anchor line with end termination and a position of the rescue / evacuation clamp of 1m below the end termination.

7. Corrosion resistance

Corrosion resistance has to be conforming to 5.5 of EN 362:2002 2004.

8. Marking (in addition to EN 365:2004)

- clear to the intended equipment to be used with the rescue / evacuation clamp
- min. and max. rated load in kilogram
- pictogram showing the direction of use
- pictogram/figure showing how the rescue / evacuation clamp should be attached
- maximum and minimum rated load

9. Instruction for use (in addition to EN 365:2004)

- a warning that the claimed use of the clamp is only for rescue / evacuation and should only be used by person which are well trained in rescue procedures
- maximum and minimum rated load
- a description, on how the clamp is against unintended loosening secured,
- a description, on how the clamp has to be used with the rescue / evacuation equipment,
- a information, indicating the type designation and specifications of the fall arrest components (lanyards/anchor lines), e. g. retractable type fall arrester, guided type fall arrester including a flexible anchor line, for which the clamp is intended to be used

Status: September 2024



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Version 3

RECOMMENDATION FOR USE

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Grou	up 11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	13/09/2023 07/12/2023 26/05/2024
Question related to		⊠ EN/prE	N: EN 353-1:2014+A1:2017	☐ Other:
Article:	Annex:	Clause:		
Key words:				
Guided type fall arre	ster including rigid anchor line; angles of rigid ar	nchor line		
Question:				

Solution:

- Case 1: the manufacturer claims a use in the range of EN 353-1:2014+A1:2017: all tests according to EN 353-1:2014+A1:2017
- Case 2: the manufacturer claims a use beyond the range of EN 353-1:2014+A1:2017 (forward, sideway and combined if claimed):
 all tests according to EN 353-1:2014+A1:2017 plus additional tests at maximum angles beyond EN 353-1:2014+A1:2017, including a risk analysis and practical test (according to article .5.1.3)

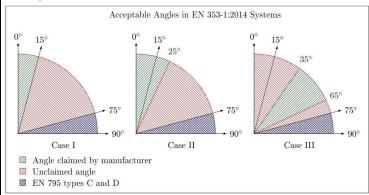
How to assess devices when the manufacturer claims the use of its guided type fall arrester including rigid anchor line with higher angles

- During dynamic performance tests on wire ropes load at bottom anchor shall be measured. The value shall be in the installation instructions
- Maximum allowed angle: 74° (note: beyond 74° from vertical EN 795:2012 type C or D applies) Installation instructions shall include maximum angle(s) permitted

than the standard values (+15° in forward and sideward direction) given in EN 353-1:2014+A1:2017?

- Case 3: the manufacturer claims a use between 16 and 74° so out of the range of EN 353-1:2014+A1:2017: relevant tests from EN 353-1:2014+A1:2017 with minimum and maximum claimed values (forward/sideway and combined if claimed), including a risk analysis and practical test (according to article .5.1.3).
 - Maximum allowed angle: 74° (note: beyond 74° from vertical EN 795:2012 type C or D applies)
 - Installation instructions shall include maximum angle(s) permitted and the device shall not be marked EN 353-1:2014+A1:2017
- Case 4: If the manufacturer claims a use with various angles (e.g. user moving horizontal from one vertical line to another one): as long as the user does not change his attachment to the anchor line: all tests according to EN 353-1:2014+A1:2017 at horizontal. If not (e.g. presence of corners, maximum horizontal length vs vertical length,...) EN 795:2012 shall apply as test procedure.
- Backward angle (less than -1°) shall be tested in the same way (tests, risk analysis, practical tests)
 Note: long span of wire ropes on a backward angle could lead to a backward fall (when the user blocks the GTFA and rests in the system, moreover if the tension in the wire rope is low) and to a longer distance between the user and the ladder or structure. Therefore, a specific risk analysis and applicable tests with the maximum claimed span (including at least applicable dynamic tests and ergonomic ones) shall be carried out.

Examples:





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Version 2

Number of pages: 1	Approval stage :	Approved on :	
Origin : Vertical Group 11	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	14.10.2020 01.10.2021 18.11.2022	
Question related to PPE Regulation PPE Guidelines	B EN/prEN EN 341 :2011	☐ Other:	
Article: Annex:	Clause:		
Key words:			
Descender devices for rescue; Function Test			
Question: What is the sense of the test "wet and cold condition" (art.5.4.)	3) by immerse the device in water?		
Preliminary note: By immersing automatic descender devices in water (instead of spraying) these devices will normally fail this test			
Solution: For automatic descender devices the wet and cold condition test can be limited to cold condition. If taken into account, automatic descenders should not be conditioned according to the first 2 sentences of EN 341:2011 art. 5.4.3.			
Manufacturer's instructions and Information must be clear stating that use in wet and cold conditions is not allowed with these devices.			
EN 341 shall not marked on the product nor in the instructions	, unless the device satisfies EN 341:2011 art. 5.4.	3.	



PPE-R/11.118 Version 1

Number of pages: 1	Approval stage :	Approved on :	
Origin : Vertical Group 11 'Protection against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 27.12.2018 29.11.2019	
Question related to 🖂 PPE Regulation 🗌 PPE Guidelines	☑ EN/prEN: EN 341 :2011	☐ Other:	
Article: Annex:	Clause:		
lv.			
Key words: Descender devices for rescue; textile rope lines			
Descender devices for rescue, textue rope lines			
Question:			
Can a textile rope line used for EN 341:2011 automatic descender d diameter of EN 1891:1998 type A?	evice (type 1) be acceptable even if it does	not conform to the required	
Solution: Yes, the descender device can be approved as PPE but :			
1- A risk analysis shall be carried out for the diameter effect.			
2- The descender device (including the line) shall conform to	all other requirement of EN 341:2011.		
3- EN 341 cannot be marked on the PPE nor on the instructions			



PPE-R/11.119 Version 1

RECOMMENDATION FOR USE

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Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Gro	up 11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.06.2018 27.12.2018 29.11.2019
Question related to	□ PPE Regulation □ PPE Guidelines	⊠ EN/prE 2014+A1/2	N: EN 353-1: 1017	Other:
Article:	Annex:	Clause:		
Key words: Guided type fall arre	ster including rigid anchor line; Number of users	s simultaneou	usly	
Question:				
•	ed type fall arresters including a rigid anchor line on simultaneously on the rigid anchor line?	(made of wi	re rope or of rail), when the ma	inufacturer claims the use by
Solution:			Note: GTFA = gui	ided type fall arrester)

Following requirements and test procedures are the basic for the assessment

1. General requirement

The guided type fall arrester including the rigid anchor line has to conform to EN 353-1:2014+A1:2017

2. Additional test procedures for GTFA including a rigid anchor line made of wire rope

2.1 Dynamic test

2.1.1 first test

Carry out the dynamic performance test according to clause 4.3.2/5.3.2 of EN 353-1 but without a guiding bracket. After the test the test mass shall remain suspended.

Check if there is a slack in the anchor line due to the arrest of the GTFA, which could lead to a higher fall distance of the next GTFA. If there is a higher fall possible, it has to be taken into account during the following tests.

2.1.2 second test

Attach the second GTFA below the first one on the rigid anchor line and repeat the dynamic performance test according to 2.1.1 with the second test mass.

2.1.3 additional tests

For each additional user, repeat the test according to 2.1.2 by placing an additional GTFA on the rigid anchor line below the previous GTFA.

2.2 Static Strength test

If the peak load at the top anchor is greater than 6 kN during 2.1.2 or 2.1.3, carry out the static strength test according to clause 4.2.2.3/5.2.2.3 of EN 353-1 with 2.5 times the recorded peak load.

3. Additional requirements for the instructions supplied by the manufacturer for GTFA including a rigid anchor line made of <u>wire rope and rail</u>

Following information is required:

- maximum length of the rigid anchor line
- maximum number of users for the simultaneously use
- minimum required distance between two GTFA (the users) during use
 - o for anchor lines made from wire rope: 3m
 - o for anchor lines made from rail: 3m or two times the maximum span according to the greater length

for anchor lines made from wire rope, an advice, that every user can be influenced and fall due to the movement of the anchor line initiated by the other users

Status: September 2024



PPE-R/11.121 Version 1

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 27.12.2018 29.11.2019
Question related to ☐ PPE Regulation ☐ PPE Guidelines	⊠ EN/prEN: EN 353-1:2014	☐ Other:
Article: Annex:	Clause:	
Key words:		
Function test, arrest distance		
Question:	ly one of them?	
For function Tests, shall H_{LD} and H_{AD} requirement be met both or online	y one or mem?	
Solution:		
H _{LD} and H _{AD} requirement shall be met both		



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Version	1			

Number of pages: 1	А	pproval stage :	Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'			21.06.2018 27.12.2018 29.11.2019
	EN/prEN: 61 :2002	EN 360 :2002, EN	☐ Other:
Article: Annex: C	ause:		
Key words: Retractable fall arrester, full body harness			
Question:			
How to assess a retractable type fall arrester which is attached to a full typical attachment point (e.g. a D-ring)?	body harne	ss by a specific adapter which	n is not connected to the
Solution: Each claimed compatible full body harness should be tested.			
Test shall be carried out according to EN 360 using full body harness at	nd torso dui	mmy instead of rigid mass	
Instruction for use should include compatible products and add sufficien	t informatio	on on how to connect the devi	ce.



PPE-R/11.123 Version 1

Approval stage :	Approved on :
✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 27.12.2018 29.11.2019
EN: EN 360:2002, EN , EN 1496:2017	☐ Other:
ns?	
3/or EN 1496	
	Vertical Group Horizontal Committee EU PPE Working Group EN: EN 360:2002, EN EN 1496:2017 Ins?



PPE-R/11.124

Version 05

×	RECOMMENDA	ATION FO	R USE	
Number of pages: 2			Approval stage :	Approved on :
Origin : Vertical Group 11	Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	02.12.2021 30.04.2022 31.08.2023
Question related to 🖂 I	PPE Regulation PPE Guidelines	⊠ EN/prE	:N: EN 360:2002	Other:
Article:	Annex:	Clause:		
Key words:				
Retractable type fall arres	sters, twin, horizontal use			
Question:				
How shall retractable type fall arresters ("RTFA") with 2 retractable lanyards (two devices connected with an adapter) attached to the full body harness be assessed?				

Solution:

1 General requirements

Each single retractable type fall arrester shall comply with EN 360:2002

2 Additional requirements / tests

2.1 Design requirements

- Both retractable lanyards/devices shall be identical (design, material, dimensions, length, ...).
- The complete length of the retractable type fall arrester including connectors L has to be limited to L≤2.5 m.
- The lanyards must be of textile materials to avoid severe injuries in case of a fall.
- If the manufacturer claims horizontal use on twin RTFA, test 2.3 of this RfU shall be repeated following 4.4 (Dynamic Performance tests) of PPE-R/11.060.

Notes:

- Twin RTFA with one energy absorbing element: horizontal test with one leg (to be repeated if the two legs are different)
- Twin RTFA with energy absorbing element at each leg: horizontal test with one leg (to be repeated if the two legs are different) and both legs
- a new sample can be used for each test

2.2. Dynamic performance test with one lanyard attached

Attach one fully extracted lanyard to a rigid anchor point. Connect the harness attachment point including a load cell to a test mass equal to the maximum rated load but not less than 100 kg and raise the mass twice the maximum length of the device. Release the test mass and record the braking force Fmax and the arrest distance H.

Requirement: $F \le 6$ kN and $H \le 2L + 1.75$ m and $H \le 5,75$ m

Note: This method takes into account the foreseeable misuse of free fall, by climbing above the anchor point.

2.3 Dynamic performance test with both lanyards attached to the same anchor point

Attach both fully extracted lanyards to a rigid anchor point. Connect the harness attachment point including a load cell to a test mass equal to the maximum rated load but not less than 100 kg and raise the mass twice the maximum length of the device. Release the test mass and record the braking force Fmax and the arrest distance H.

Requirement: $F \le 6$ kN and $H \le 2L + 1.75$ m and $H \le 5,75$ m

Note: This method takes into account the foreseeable misuse of free fall, by climbing above the anchor point with both lanyards connected to the same anchor point.

Status: September 2024

2.4 Dynamic performance test at near full extraction

Attach one fully extracted lanyard to a rigid anchor point. Connect the harness attachment point including a load cell to a test mass equal to the maximum rated load but not less than 100 kg and raise the mass 250mm. Release the test mass and record the braking force Fmax and the arrest distance H.

Requirement: Fmax <6 kN and H <1.4m

Note: This method is used to test the behaviour of the end stop. The arrest distance of 1.4m results from the EN 360:2002 clause 4.5 requirement of 2.0m minus 0.6m because there is no free fall.

2.5 Dynamic performance test with both lanyards attached to different anchor points

Attach each lanyard to a separate rigid anchor point with a horizontal distance of 1.5 times the maximum length of the retractable type fall arrester (e.g. 2m device = 3.0m distance). Connect the harness attachment point including a load cell to a test mass equal to the maximum rated load but not less than 100 kg and raise the mass until the lanyards are fully extended. Release the test mass and record the braking force Fmax and the arrest distance H.

Requirement: $F \le 6$ kN and $H \le 2L + 1.75$ m and $H \le 5,75$ m

Note: This method takes into account the foreseeable misuse of free fall, by climbing above the anchor point if both lanyards are connected to different anchor points.

2.6 Static strength test of the retractable lanyard

Apply a force of 22kN for 3 minutes on the retractable lanyard only. (A test specimen including suitable terminations can be submitted by the applicant.)

Requirement: The lanyard shall sustain the load without failure.

2.7 Ergonomic test

Carry out an ergonomic test with two persons of different height and weight within the range of 160 cm to 190 cm and within the range of 60 kg to 95 kg, wearing lightweight clothing and a full body harness conforming to EN 361:2002. The test persons examine the ergonomic and functional behavior of the device when climbing (up- and downwards, horizontal, diagonal) in a suitable construction (ladder, modular scaffolds, ...).

Check if there are any additional risks for the user (e.g. housing could hit the head).

2.8 Retraction function with rotation test (4.1.1/5.3.5 of prEN 360 - TC160/WG2 doc N770)

5.3.5.1 Suspend the twin RTFA to a non-rotating anchor point and fully extract the retractable lanyard(s) and allow the lanyard(s) to fully

retract in a controlled manner.

5.3.5.3 For a twin RTFA extract (1000 \pm 10) mm of the retractable lanyards. Rotate the twin RTFA housing attachment point ten full turns

Allow the lanyards to retract. The lanyard retraction and any untwisting shall be unassisted and controlled by hand resistance to prevent uncontrolled take-up of the lanyard by the RTFA. Check that the lanyard fully retracts. Perform the test in 5.3.5.2 (*) on each lanyard. If applicable, repeat the test for each direction claimed by the manufacturer.

(*): 5.3.5.2 For a RTFA extract (300 \pm 10) mm of the retractable lanyard. Rotate the end termination of the retractable lanyard or the RTFA housing attachment point ten full turns. Allow the lanyard to retract. The lanyard retraction and any untwisting shall be unassisted and controlled by hand resistance to prevent uncontrolled take-up of the lanyard by the RTFA. Check that the lanyard fully retracts. If applicable, repeat the test for each direction claimed by the manufacturer.

Requirement: The retractable lanyard(s) shall fully retract.

3 Instructions for use

In addition to conforming to EN 360:2002, the information shall include advice or information as follows:

- Advise that the unit must only be attached to the fall arrest attachment element at the back of the full body harness.
- Information on the intended use the device is designed for (e.g. vertical and horizontal movement in high-rack warehouses, assembly and dismantling of industrial scaffoldings, vertical climbing on two spar ladders or crampons courses. ...).
- Advice that the anchor points at the building or structure shall be at least at waist height. In exceptional cases, the anchor point may be also lower, but not lower than the height of the user's prior level. These exceptions are for example use in container assembly, on flat roofs, in erection of steel structures where larger distances are present between the anchor points due to construction.
- A warning about the risk of injury to the neck and head by the device and the lanyard.

Status: September 2024

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PPE-R/1	1.1	25
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* * *	RECOMMENI	DATION FO	R USE			
Number of pages: 1			Approval stage :		Approved on :	
Origin : Vertical Group 11			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	0.	7.06.2021 1.10.2021 8.11.2022	
Question related to PP	E Regulation PPE Guidelines		⊠ EN/prEN: EN 892:2012 +A1:2016, EN 1891:1998		Other:	
Article:	Annex:	Clause:				
Key words:		•				
Dynamic mountaineering rop	pe, low stretch kernmantel rope, markir	ng				
Question:						
Are markings made of bands kernmantel ropes?	s mandatory for EN 892:2012+A1:2016	6 Dynamic mou	untaineering ropes and EN 1	891:19	98 Low stretch	
,	urable markings at both ends. hall comply EN 892:2012+A1:2016 (ar	rt. 6) and EN 18	391:1998 (art. 6.2)			

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PPE	-R/1	1.1	27
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Version 2

RECOMMENDATION FOR USE

	RECUIVINE	NUATI	ON FUI	K USE				
Number of pages: 1				Approval stage :			Approved on :	
Origin : Vertical Group 11		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group		9	07.06.2021 01.10.2021 18.11.2022			
Question related to PPE F	Regulation PPE Guidelines		☑ EN/prE	:N: EN 361 :2002] Other:	
Article:	Annex:	С	Clause:					
Key words:								
Full body harness, ergonomic to	ests							
Question:								
How to assess ergonomic requ	irement on full body harness?							

Solution:

1- Requirement:

When tested in accordance with §2, the full body harness shall be shown to:

- a) be capable of adjustment to enable correct positioning on the user;
- b) be able to support the user in an upright position while in suspension;
- c) consist of metal fittings with no contact with the groin, the inside of the thighs, the armpits or the small of the back;
- d) shall not migrate from original position
- e) remain correctly adjusted.

2- Test Methodology

The test subjects shall be two persons of different height, within the range 160 cm to 190 cm, and of different weight, within the range 60 kg to 110kg. Each person shall be within the size range for the full body harness being examined and shall wear lightweight clothing. There shall be a size difference of at least 15 cm between the two persons and weight difference of at least 30 kg.

The test subject shall don the full body harness in accordance with the information supplied by the manufacturer.

Test 1: The test subject shall perform at least following movements: raising hands above the head, leaning the body in the direction of the ground, squatting, kneeling, picking up an object from floor...

Test 2: the test subject shall be suspended clear of the ground by means of a suitable lifting/lowering device connected to the attachment point. The suspension test shall be carried out for each attachment point of the full body harness designated by the manufacturer.

The test subjects shall be directly supervised throughout the procedure



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Version 3

RECOMMENDATION FOR USE

Number of pages: 2		Approval stage :	Approved on	:	
Origin : Vertical Gro	up 11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	13/09/2023 07/12/2023 26/05/2024	
Question related to		⊠ EN/prE	EN: EN 341:2011	Other:	
		EN 360:20	002		
Article:	Annex:	Clause:			
Key words:					
Climbing gym, rope	courses, lowering device, autobelay devices				
Question:					
How to assess/test	devices used in climbing gym or rope courses for	or belaying a	nd lowering people?		
Solution:					
These devices sha	Il conform to all requirements of FN 341-2011 cl	ass A (design	n/construction tests marking i	nstructions for use) nlus the

following requirements:

1- the descent energy performance test (Art. 4.5 for requirement and 5.5 for test method) shall be repeated 10 times

Note: descent rope/ webbing/ cable can be replaced when it is worn during this testing according to manufacturer's instructions for use but it has to meet, at least once, the EN 341:2011, class A (1 x 7,5.106 J) and static strength test with 10 x maximum rated load, at least 12 kN

- **2-** If the device is claimed to be used only in indoor there is no need to carry out the wet and cold test as per art. 5.4.3 of EN 341:2011 If the device is claimed to also be used outdoor: follow PPE-R/11.117
- **3-** EN 360:2002 has to be considered for climbing up-performance of autobelay devices. Difference: no blocking required (descending like EN 341:2011 instead).

4 Marking

The marking on the descender device shall conform to 4.8 of EN 365:2004. In addition, the marking shall include:

a) On the device:

- Maximum descent height in metres;
- Maximum and minimum rated load in kilograms;
- Lowest temperature at which the device may be used;
- An indication of the model and type/identification mark of the appropriate line;
- Safety relevant instructions
- Pictogram to indicate necessity for users to read the instructions for use.
- Position of attachment
- Manufacturing date

b) On the termination of the line:

- Name or logo of the manufacturer of the descender device;
- Year of production of the line.
- Length of the line

5 Information supplied by the manufacturer

The information supplied by the manufacturer shall conform to EN 365. In addition, it shall include at least advice or information as follows:

- A warning that the descender device shall only be used by a person informed about its use or under supervision of competent persons;
- Maximum rated load, minimum rated load and maximum descent height of the descender device;
- On the recommended types of body-holding device that are to be used with the descender device;

People less than 40kg shall use a EN 12277+A1:2018 harness type B "small body harness"

- If the auto belay device shall only be used indoors, the lowest temperature and environmental conditions at which the descender device may be used;
- How to connect the descender device to the user and to the anchor point;
- That descender devices installed at a workstation and left in place between inspections should be protected adequately against environmental conditions;
- A warning that the connection of the descender device to the anchor point should be arranged so that the descent is not impeded;
- That any slack in the line between the user and the anchor point shall be avoided:
- Advice on the maximum number of descents allowed before service and/or replacement;
- On which are the attachment points of the descender device for connection of the user and/or to the anchor point;
- A warning that it is vital always to descend in control, because loss of control may be difficult to recover;
- A recommendation to have an absorbing surface at the bottom of the route
- The number of this sheet PPE-R/11.128 V2.
- Information about spare lines
- Safety relevant instructions
- Rescue plan
- Cleaning/ disinfection
- Maintenance
- Transportation
- Explanation of markings
- Life time evaluation



PPE-R/11.129 Version 1

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	RECOMMEND	PATION FO	R USE	
Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 11	'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	13.06.2019 15.09.2019 14.03.2022
Question related to 🛛 F	PPE Regulation	⊠ EN/prE A1:2017	:N: EN 353-1:2014 +	☐ Other:
Article:	Annex:	Clause:		
Key words:				
Guided type fall arrester,	closing mechanism			
Question:				
How to check the comple	te closure of the opening mechanism of a	a guided type f	fall arrester?	
information, there shall be	e guided type fall arrester back onto the complete closure of the opening mechaster shall be such that it is not possible to	nism and the	self-locking fall arrest function	
on the rigid anchor line in Carry out a visual check	nding and descending test with two personaccordance with the manufacturer's instrand verify that the opening mechanism perform a pre-use check in accordance with the control of the contr	ructions and ir closes comple	offormation. Setely after refitting the guided	type fall arrester in or on the



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Version 1

RECOMMENDATION	I I OIL OOL	
Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	13.06.2019 15.09.2019 14.03.2022
Question related to PPE Regulation PPE Guidelines E	N/prEN: EN 358:2018	☐ Other:
Article: Annex: Claus	Se:	
Key words: Dynamic strength test, integrated lanyard		
Question: How to carry out test according to Art. 5.7.3.2 of EN 358:2018 (dynamic s understood to test with full length of the lanyard minus 300mm?	trength test on Waist belt with integ	grated lanyard) as it could be
Solution: The dynamic strength test of a waist belt with integrated lanyard can be of purpose of the test by the manufacturer	carried out with a specific sample o	of 1,3m long, provided for the



PPE-R/11.13
Version 1

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Number of pages: 1		Approval stage :	Approved on :
Origin: Vertical Group 11	'Protection against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	13.06.2019 15.09.2019 14.03.2022
Question related to S	PPE Regulation	⊠ EN/prEN: EN 358:2018, EN 361:2002, EN 813:2008, EN 12277+A1:2018	☐ Other:
Article:	Annex:	Clause:	
Key words: Fastening elements, harn	ess, sit harness		
		s EN 361:2002, EN 813:2008 or EN 12277+ sted according to EN 358:2018 clauses 4.1.	
Solution:			
Yes			



PPE-R/11.132 Version 1

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Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group	11 'Protection against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	13.06.2019 15.09.2019 14.03.2022
Question related to	PPE Regulation PPE Guidelines	⊠ EN/prEN: EN 361:2002	☐ Other: 11.062
Article:	Annex:	Clause:	
Key words:			
Maximum rated load, fu	ull body harness, instructions for use		
Question:			
Can instructions for use	e of a Full Body Harness claim a maximum ra	ated load more than 100kg?	
	r use shall require only to use energy absorb orbing element shall be tested according to R		n rated load.



PPE-R/11.133
Version 1

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Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	13.06.2019 15.09.2019 14.03.2022
Question related to	PPE Regulation PPE Guidelines		N: EN 892:2012 EN 1891:1998	☐ Other:
Article:	Annex:	Clause:		
Key words:				
Dynamic mountaineeri	ng rope, low stretch kernmantel rope, constru	iction		
Question:				
Should each construct EN 1891:1998 be teste	ion (braiding,core yarns,) of dynamic mounted?	aineering rop	oes EN 892:2012+A1:2016 or l	ow stretch kernmantel ropes
Solution: Yes				



PPE-	R/1	1.1	135
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Version 03

RECOMMENDATION FOR USE

Number of pages: 1			Approval stage : Approved on :			
Origin : Vertical Group 11 'Protection against Falls from a Height'			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	02/12/2021 30/04/2022 31/08/2023		
2010, EN		2010, EN	N: EN 795:2012, EN 354 362 :2004, EN 3 EN 365 :2004	☐ Other:		
Article:	Annex:	Clause:				
Key words:						
Swivel, use for work,	industry, mountaineering					
Question:						
How to assess swive	l used by a person as a fall protection for indu	ustry or mount	aineering?			
Solution:						
Example:						

Preliminary remark

PPE-R/11.135 only applies to swivel as an independent PPE or if the manufacturer claims conformity to PPE-R/11.135 for a swivel integrated in a PPE

Applicable standard:

No applicable EN standard:

- Not EN 795:2012 as not anchor devices
- Not EN 354:2010 as not flexible
- Not EN 362:2004 or EN 12275:2013 as cannot be opened.

As there is no relevant EN standard, the NB shall apply the Essential Health and Safety Requirements of the PPE Regulation and shall at least include following requirement in the assessment:

1- Static test: following applicable requirements of EN 12275:2013: apply static strength value marked on the swivel but not less than 20kN. The device shall withstand the force.

2- Corrosion test:

Swivel shall be tested in accordance with 5.9 of EN 354:2010. All metallic elements shall not show evidence of corrosion of the base metal and swivelling shall still function

- **3- Marking:** applicable requirements of EN 12275:2013 and/or EN 362:2004+ EN 365:2004, with strength value in 'kN' claimed by the manufacturer (whole number) but no reference to an EN standard.
- **4- Instructions for use:** applicable requirements of EN 12275:2013 and/or EN 362:2004+ EN 365:2004: how to use it, type of connectors to use, breaking strength in 'kN'... but no reference to an EN standard.

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CO-ORDINATION OF NOTIFIED BODIES

PPE-R/11.136

Version 1

* * *	PPE Regulation 2016/425						
RECOMMENDATION FOR USE							
Number of pages: 1			Approval stage :		Approved on :		
Origin : Vertical Group 11 ☑ Vertical Group ☑ Horizontal Committee ☑ EU PPE Expert Group			9 0	7.10.2019 1.10.2021 8.11.2022			
Question related to PPE F	Regulation PPE Guidelines	⊠ EN/prE	N: EN 353-1 :2014		Other:		
Article: 4.1.2.5	Annex:	Clause:					
Key words: Guided type fall arrester, connecting element Preliminary remark: Clause 4.1.2.5 of EN 353-1:2014 states "The connecting element(s) shall be permanently attached to the guided type fall arrester" Question: Is a Guided Type Fall Arrester ('GTFA') connected to a connector by a secondary component (e.g. a small size wire rope) conforms to requirement of 4.1.2.5? Example:							
0.15							

Solution:

There is a foreseeable misuse of using the Guided Type Fall Arrester not directly connected to the connector.

Note: It could only be acceptable if it would fulfill all requirements when the connector is linked to the guided type fall arrester by secondary component (e.g. the wire rope).

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CO-ORDINATION OF NOTIFIED BODIES

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PPE Regulation 2016/425 RECOMMENDATION FOR USE							
Number of pages: 1	REGOMMENT	<u> </u>	Approval stage :		Approved on :		
Origin : Vertical Group 11 Vertical Group Horizontal Committee EU PPE Expert Group			0	4.10.2020 01.10.2021 8.11.2022			
Question related to PPE F	Question related to PPE Regulation PPE Guidelines EN/prEN: EN 353-1 :2014+A1 :2017				Other:		
Article: : 5.3.4.3 and Fig. 11	Annex:	Clause:					
Key words: Guided type fall arrester, minim Preliminary remark:	Guided type fall arrester, minimum distance test						
Clause 5.3.4.3. states that in the pre-release position, the test mass shall be in contact with the guided type fall-arrester but in Figure 11, which depicts the test arrangement, the test mass is not in contact with the fall-arrester. Question: Which takes precedence, the text in clause 5.3.4.3 or the diagram in Figure 11?							
Solution:							
The test method in clause 5.3.4.3 takes precedence over the diagrammatic representation of the test in Figure 11. Note: where an energy-absorbing element is relatively short the test shall be carried out so that: "with the guided type fall arrester in an unlocked position the rigid test mass shall be in contact with any part of the guided type fall arrester, including the energy-absorbing element, without changing the position of the guided type fall arrester on the rigid anchor line"							



PPE-R/11.138

Version 1

Number o	of pages: 1		Approval stage :	Approved on :
Origin : Ve	ertical Group 11		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	20.11.2020 01.10.2021 18.11.2022
Question	related to 🛛 PPE Regulation 🗌 PPE Guidelines	⊠ EN/prE	N: : EN 17109 :2020	Other:
Article:	Annex:	Clause:		
Key words	s:			
Individual	safety systems, rope courses			
Question:				
How to int	terpret the various editorials errors noted in EN 17109:202	0?		
Solution:				
•	Article 4.3.4 refers to 5.3.5 method but should only refer to Article 4.4 shall refer to 5.3.5.4	5.3.5.1, 5.3	.5.1.2 and 5.3.5.1.3 as 5.3.5.1.4	4 is not applicable here
•	Article 4.5 refers to 5.1 but should refer to 5.5			
•	Article 5.3.1 says that for 5.3.3 and 5.3.4 all loading position	ons indicated	in the instructions for use shall	be tested. But 5.3.3 and
	5.3.4 tests have to be carried out in the normal position. A	rticle 5.3.1 sł	nould refer to 5.3.5	
•	Article 5.3.5.2 and 5.3.5.3 do not indicate how long the str duration). VG11 decision: Apply the load for (3+0.1/-0) m Article 4.2 / 5.2 does not define which diameter the test sh out. Proposal: minimum	in		
•	Articles 6c and 7a: should refer to EN 17109:2020 and no	t 2019		
•	Annex B, Table B1: Number 14 should be EN 12277:201		2	



PPE-	-R/1	1.139
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Version 1

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 11		20.11.2020
		01.10.2021
		18.11.2022
Question related to PPE Regulation PPE Guidelines	⊠ EN/prEN: : EN 12841:2006,	☐ Other:
	EN 341:2011, EN 1891:1998	
Article: Annex:	Clause:	
Key words:		
Rope not conform to EN 1891, anchor line, line		
Preliminary remarks:		
EN 12841:2006 Art. 4.1.1 indicates that each rope, other than those of	_	
tested. EN 341:2011 allows in Art. 4.2.2.2 other textile rope lines that	n in EN 1891:1998-A.	
Questions:		
1- What are the consequences for these ropes not conforming to EN	1891:1998:	
a. Shall they be controlled under Module C2 or/ D?		
b. If detachable, shall they need CE-marking on them?c. If detachable, shall they need specific marking on them?		
c. If detachable, shall they need specific marking on them?d. Should there be differences if they are used in EN 12841:2	006-A, -B or -C devices?	
2- What are the consequences for the marking on the metallic device?		
Solution:		
1- For ropes:		
 Yes. As a component of the complete PPE, EN 12841:2000 production control. Production has to guarantee that rope p 	arameters stay inside tolerances, which gu	
 acceptable performance for EN 12841:2006 and/or EN 34 b. Complete PPE conforming to EN 12841:2006 and/or EN 34 it on the rope itself 		is not mandatory to apply
c. Yes. The marking shall include at least the identification (m	odel) of the rope	
d. No	, ,	
The marking on the metallic device shall include at least the rope(s) ide	entification(s) (model) to be used with the d	evice



Version 2

RECOMMENDATION FOR USE

Number of pages: 2			Approval stage :	Approved on :
Origin : Vertical Group 11			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	07.06.2021 01.10.2021 18.11.2022
Question related to 🗵 PPE	Regulation PPE Guidelines	EN 567:20	:N: : EN 12841-B:2006, 013, EN 361:2002, 018, EN 813:2008,	☐ Other:
		EN 12277	:2015+A1 :2018	
Article:	Annex:	Clause:		
Key words: Rope clamp/Rope adjustmen	t device used in harnesses			
Question: How to assess harnesses in designed only for rope clam	cluding a rope clamp/rope adjustmen p/rope adjustment device?	t device or a s	pecific attachment point (e.g. s	mall size stitched loop)

Solution:

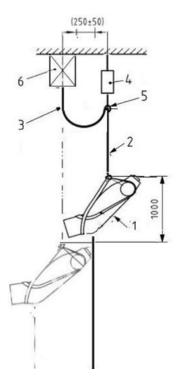
Harnesses including a rope clamp/rope adjustment device shall fulfil following requirements beyond PPE Regulation:

- 1- Rope clamp/Rope adjustment device shall conform to EN 12841:2006 type B (rope access use) and/or EN 567:2013 (mountaineering use)
- 2- Harness including a rope clamp/rope adjustment device or an attachment point specifically designed for rope clamp/rope adjustment device shall fulfil:

EN 361:2002 and/or EN 358:2018 and/or EN 813:2008 and/or EN 12277:2015/A1:2018

- 3- Harness attachment point specifically designed only for rope clamp/rope adjustment device shall fulfil following tests depending on the scope of use:
- 3.1 EN 12841:2006 type B use claimed for rope access (for EN 361:2002, EN 358:2018, EN 813:2008 harness)
 - a) Minimum Working Strength: according to article 4.3.3 dry condition (F=4kN/3min)
 - b) Dynamic Strength Test: instead of article 4.3.4 use following test procedure:
 - > Use EN 364:1992 torso dummy (with maximum user weight)

- > Test setup: Anchor point test lanyard (1m EN 892:2012+A1:2016 single rope \otimes 11mm with an impact force of (9 \pm 1,5) kN EN 362:2004 connector anchor line (5m of rope type claimed by the manufacturer based on EN 12841 requirement) with maximum diameter
- > Place the rope adjustment device of the harness 1m below the top point of anchor line and suspend the dummy for 60 sec.
- > Connect the quick release mechanism to EN 362:2004 connector between test lanyard and anchor line and raise the system 1m to generate a 1m long free fall
- > Release the system
- > Measure arrest distance Ha (max. 2m) of rope adjustment device (based on EN 12841/B:2006)
- > Repeat the test with anchor line with minimum diameter as claimed by manufacturer



- 1 torso dummy (incl. rope adjustment device)
- 2 anchor line
- 3 test lanyard (1m EN892:2012 + A1:2016 single rope)
- 4 quick release mechanism
- 5 connector between test lanyard and anchor line
- 6 anchor point

3.2 EN 567:2013 use claimed for mountaineering (for EN 12277:2015/A1:2018 harness) Static Strength Test: according to EN 567:2013 article 4.2.1 (F=4kN – no cycles)



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Version 1

RECOMME			
Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group 11		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	07.06.2021 01.10.2021 18.11.2022
Question related to PPE Regulation PPE Guidelines	⊠ EN/prE EN 12841	N: : EN 358:2018, :2006	☐ Other:
Article: Annex:	Clause:		
Key words:			
Compatibility, design			
Question:			
Can a PPE conform to both EN 358:2018 and EN 12841:2006 ?			
Solution: No Article 4.1.4.2 of EN 358:2018 and article 4.1.2 of EN 12841:200 Note: this position is confirmed by TC160/WG3 (document TC16		tory requirements	

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PPE-R/	11.144
Version	1

RECOMMENDATION FOR USE				
Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Grou Height'	up 11 'Protection against Falls fro		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	23/11/2022 31/05/2023 31/01/2024
Question related to	☑ PPE Regulation	⊠ EN/prEN	: EN 12275:2013	Other:
Article:	Annex:	Clause:		
Key words: EN 12275, marking,	classes B and T			
surrounded by a commarked with B or T	013 clause 6 b) states that "the circle, for class H, class K and cla T surrounded by a circle unless t the class B or T connectors, with ircle?	ass X connect they are fitted	ors; class B and T connect with a gate-locking device	fors shall not be "
Solution:	s B and T not fitted with a gate-lo	ockina device	shall not he marked with th	na class latter
	55 from CEN/TC136/WG5)	Johnny Govide	onali not be marked with the	io olass lottor.

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PPE-R/11.14	ļ
Version 1	

$^{\circ}$ \star $^{\circ}$	RECOMM	ENDATION FO	OR USE	
Number of pages: 1		,	Approval stage :	Approved on :
Origin: Vertical Grou	ıp 11 'Protection against Fall	s from a Height'	✓ Vertical Group	23/11/2022
				31/05/2023
				31/01/2024
Question related to	□ PPE Regulation	⊠ EN/prEN	: EN 17109:2020	
				Other:
Article:	Annex:	Clause:		
Key words:				
ISS, MCD, connecto	r			
Question:				
	nforming to EN 12275:2013			o EN 17109 in order to
be used in an iss (ii	ndividual Safety System, as o	ueimea in EN 171	09.2020 art. 3.2)?	
Solution:				
certified according to	h are used as MCD (Mobile EN 12275:2013 or EN 362: t N1194 from CEN/TC136/W	2004 can be used		



PPE-R/	11.1	46
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RECOMMENDATION FOR U	JSE
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Number of pages: 1			Approval stage :	Approved on :
Origin: Vertical Grou	up 11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	13/09/2023 07/12/2023 26/05/2024
Question related to		⊠ EN/prE	N: : EN 353-1 +A1:2018	Other:
Article: 5.3.2.2	Annex:	Clause:		
Key words: EN 353-1, maximum	span, dynamic performance, wire rope			
Question:				
Context: EN 353-1+7 between brackets.	A1:2018 - article 5.3.2.2 (dynamic performan	ce test) requires	s installing the maximum span	of the rigid anchor line
Question: how to car	rry out tests if a long distance between brack	ets is claimed (e	e.g. 20m, 30m,) for wire rope	rigid anchor line?
Solution:				
	of the wire rope rigid anchor line, the max mum of 300mm from the top anchor and as th			
Tests can be carried	out with span of at least 5m long (as used for	r art. 5.1.2. for g	eneral examination)	
Note: for a backwar	d angle (less than -1°) see PPE-R/11.116			



PPE-R/11.147

	RECOMMEND	<u>ATION FO</u>	R USE		
Number of pages: 1			Approval stage :	Approved on :	
Origin : Vertical Group 11 'P	: Vertical Group 11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	13/09/2023 07/12/2023 26/05/2024	
Question related to PP	PE Regulation PPE Guidelines	⊠ EN/prE	N: : EN 564:2023	☐ Other:	
Article: 5.2.5.2	Annex:	Clause:			
Key words:					
EN 564, knotted loop, perfor	mance				
Question:					
Context: Article 4.4 – Figure	e 1 describes an Overhand knot with no p	recision how	to install the two strands		
Question: how to install the	two strands shown in figure 1 "Overhand	knot"?			
Solution:					
	N/TC136/WG5/N1373 (presentation of th during the 11-12 May 2023 meeting)	e question) a	and CEN/TC136/WG5/N1383 (u	inanimous approval of the	
	notted loop as defined in subclause 4 allel (see the picture below replacing the			nd knot shall be tested with	
Note that figure uses 2 differ	rent diameters while test concerns only o	ne accessory	v cord		
			11.7		
2. ;	parallel overhand knot (outer) - loose ends on same side				
- 10	aded stands on <u>outer side</u> of knot				
The state of the s	HILL THE REAL PROPERTY.	SHIPMI			
70000			Section 1997		



PPE-R/11.148

Version 1

Number of pages: 1	Approval stage :	Approved on :
Origin: Vertical Group 11 'Protection against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	13/09/2023 07/12/2023 26/05/2024
Question related to PPE Regulation PPE Guidelines	rEN: 795:2012	Other:
Article: Annex: Clause:		
Key words:		
Question:		
How to assess temporary transportable horizontal flexible anchor line (e.g. mad	e of tape or rope)?	
Solution:		
This kind of equipment (see below drawing) is type C as defined in EN 795:201 considered as PPE, therefore type B shall be applied in addition to type C.	2 Art. 3.2.3 but as temporary and	transportable shall be
All relevant requirements to types B and C shall be applied. For		
marking, both types B and C shall be marked.		



PPE-R/1	11.149
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Number of pages: 1	Approval stage :	Approved on :
Origin: Vertical Group 11 'Protection against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	13/09/2023 07/12/2023 26/05/2024
Question related to PPE Regulation PPE Guidelines	☐ EN/prEN: EN 12277+A1:2018	☐ Other:
Article: Annex:	Clause:	
Key words:		
EN 12277, samples		
Context:		
While art $5.2.3.3$ of EN $12277+A1:2018$ is clear for type A ("use the saused for static tests.	ame harness"), type B and C do not spec	ify number of samples to be
Note: type D has only one strength test		
Question:		
Shall strength tests for types B and C defined in EN 12277+A1:2018 I	ne carried out using one sample?	
Solution:		
Reference document N1306 "CEN-TC 136-WG 5_N1306_EN 12277 -	WG 5 answer to Vincent Maillocheau"	
No, a new sample can be used for each strength test for types B and C	mountaineering harnesses	



PPE-R/11.150

Version 1

RECOMMENDATION FOR USE

Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Gro	up 11 'Protection against Falls from a Height'	☑ Vertical Group☑ Horizontal Committee☑ EU PPE Expert Group	
Question related to		⊠ EN/prEN: : EN 17520:2021	Other:
Article: 5.2.5.2	Annex:	Clause:	
Key words: EN 17520, Dynamic	;, adjustable personal belay lanyard		
	5.2.5.2 (dynamic strength test on personal bela etations of the test methods for the 2 nd and 3 rd		ng lanyards) could lead to
Question: which	test method should be considered for these test	ts?	
members of the int	ents: TC136/WG5/N1374 (presentation of the queroretation of the queroretation 1 of N1374 during the 11-12 May 2 extract of EN 17520.		nous approval by WG5
	ion intended for connection to the hamess to the falling mas	ss as described in the manufacturer's instructions an	d information (e.g. lark's foot) and the

Attach the end termination intended for connection to the hamess to the falling mass as described in the manufacturer's instructions and information (e.g. lark's foot) and the opposite end termination to the anchor point. Adjust it to the length L as measured in 5.2.3. Load the test sample with the falling mass as a static load for a period of (60 ± 5) s.

VG11' note: applicable for the 1st fall only

1) 1st drop: Within (120 \pm 15) s, raise the mass to a height of 2 \times L. Release the mass. Record the peak force.

VG11's note: due to the preloading the lanyard is longer than L. So, the mass is raised of 2xL but will be released less than L from the anchor

2) 2nd drop: Within (5 ± 0.25) min, adjust the personal belay lanyard to (80 ± 2) % of its maximum length L as measured in 5.2.3 and raise the mass to a height of 1.6 × L. Release the mass. Record the peak force only for the 1st drop.

VG11: the position of the mass after the 1st fall does not need to be considered for the 2nd fall.

Process to follow:

- 1. after the 1st fall, lift the mass to unload the lanyard (enough to adjust to 0,8xL)
- 2. Adjust the length to 0,8xL (by passing the lanyard through the adjuster). (reminder: L is measured in 5.2.3 so under 10kg not 80kg)
- 3. Raise the mass to a height of 1,6xL (defined as 2 times the length of the adjusted lanyard)
- 4. Release the mass

Note: by this the extension under 80kg after the 1st fall is not considered in the 2x0,8xL as this is only required for 1st fall (see the EN text before the 1st fall).

3) 3rd drop: Within (5 ± 0,25) min, raise the mass to a height of 2 × L with adjustable personal belay lanyard adjusted to the maximum length L as measured in 5.2.3. Release the mass.

VG11: same principle as for the 2nd fall:

Process to follow:

- 1. after the 2nd fall lift the mass to unload the lanyard
- 2. Adjust the length to L (by passing the lanyard through the adjuster). (reminder: L is measured in 5.2.3 so under 10kg not 80kg)
- 3. Raise the mass to a height of 2xL (defined as 2 times the adjusted lanyard)
- 4. Release the mass



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Number of pages: 1	Approval stage :	Approved on :
Origin: Vertical Group 11 'Protection against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	13/09/2023 07/12/2023 26/05/2024
Question related to PPE Regulation PPE Guidelines EN/prE	N: EN 353-2002	Other:
Article: 6 e) Annex: Clause:		
Key words:		
EN 353-2, marking, flexible anchor line		
Question: Which markings shall be affixed on the flexible anchor line?		
Solution: The following marking shall be affixed: 1. "EN 353-2:2002" (see Art 6 e) of EN 353-2:2002 and EN 365:2004) 2. Conformity to applicable requirements of EN 365:2004 (see prEN 3: 3. If the GTFA can be removed from the flexible anchor line: the diam prEN 353-2 June 23) Note: no need to mark the GTFA's identification on the flexible anchor line (compa	eter, type and length on the flex	·