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	/ 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 October 2023

<u>Vertical Group 8</u> - status in October 2023

Vertical Group 9 - status in April 2019

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

Vertical Group 11 - status in February 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 of RfU	Version	Reference	Keywords	Approved by Vertical	Approved by Horizontal	Endorsed by PPE Expert
PPE-R/	0.4			Group 1	Committee	Group
01.001	01	EN 397:1995 (+A1) & EN 397:2012	Industrial helmet, lateral deformation test, test procedure	21/04/18	21/04/18	29/11/19
01.002	01	EN 812:2012	Industrial bump caps, ventilation	21/04/18	21/04/18	29/11/19
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
<u>01.015</u>	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
<u>01.029</u>	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
01.036	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
<u>01.056</u>	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
01.062	01		Wind noise	19/09/19	01/10/21	18/11/22
<u>01.063</u>	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
01.067	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
01.070	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/01.001
Version 1

	RECUIVIIVIENDA	ATTON 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) &	Other:
Article:	Annex:	Clause: 6.	11.2	
Key words: Industrial helmet, latera	al deformation test, test procedure			
Question: In the case of helmets	which include localized projections from the si	hell, e.g. rive	ets, is it permissible to use "brid	ging elements" so that the
load is not applied direct		· , · 3	,	J J
location of the loading	results in the lateral deformation test of one in plates on the sides of the helmets turned out to on the shell, notwithstanding any localized pro pents.	to be the rea	ason for the discrepancy. Where	eas UTAC located the
Solution:				
No.				
	which the loading plates are located on the help. The formulation of chapter 6.11.2 in EN 397			s the relevant one for the



PPE-R/01.002
Version 1

	RECOMMENDATION	UN FU	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	N: EN 812:2012	☐ Other:
Article:	Annex: Cla	lause: 4.7	7	
Key words:				
Industrial bump caps, ver	ntilation			
Question:				
	ed with 'cut-outs' that extend upwards from the legarance of a baseball cap or those designed to			
Should such cut-out featu	ures be considered as holes for ventilation purp	ooses?		
Solution:				
No.				



PPE-R/0)1	.003
Version	1	

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Number of pages: 2			Approval stage :	Approved on :
Origin : Vertical Gro	up 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	EN: Various	Other:
Article:	Annex:	Clause:		
Key words:				
Shock absorption, fa	alling headform, alignment, procedure			
Question:				
What is the correct p	positioning procedure of the helmeted headform	for falling he	eadform shock absorption testin	g?
The following standa	ards are affected:			
EN 966 : 2012 + A1. EN 1077 : 2007	2012		e 7.2.3 e 5.5 (refers to EN 13087-2 : 20	100 d 5 3)
EN 1077 : 2007 EN 1078 : 2012 + A	1:2012	claus	•	00 G. 0.0j
EN 1080 : 2013		claus		
EN 1384 : 2017 EN 1385 : 2012		claus claus	e 5.7.1 (refers to EN13087-2 : 2 e 7.6	(012 cl. 5.3)
	(+A1) & EN 13087-2 : 2012	claus		
EN 13484 : 2012	,	claus	e 5.7	
EN 13781 : 2012		claus	e 5.4	

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				
Number of pages: 1		Approval stage :	Approved on :	
Origin : Vertical Group1		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	21.04.2018 21.04.2018 29.11.2019	
Question related to [PPE Regulation	⊠ EN/prEN: EN 1384:1996 & EN1384:2012	Other:	
Article:	Annex:	Clause:		
Key words:				
Helmets for equestrian a	ctivities, peak, deflection			
Question:				
For the purpose of testing	g peak deflection, what should be consider	red a peak, because the definitions given are	not clear?	
This sheet relates to the	following standards:			
, ,	N 1384 : 2012 clauses 3.10, 5.5 & 6.8			
Solution:				
above. Depending upon		ward from the that part of the helmet which of tension may be considered to be, or not to be		
not made from the same		ed with protective padding, the extension is co s, it is made from the same material of the sho not to be a peak.		
		shell (that is the helmet is predominantly mad al with the part of the helmet which covers th		



PPE-R/0)1	.006
Version	1	

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PPE-R/01.007
Version 1

	RECUMINIENDA	ATTON FO	N 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	:N: All	☐ Other:
Article:	Annex:	Clause:		
Key words:				
Test method standards				
Question:				
	ndard does not cover all test specifications ar 3087 series) how should the Test Laboratory			
Solution:				
	t fully described or clarified in the appropriate cific one, the Test Laboratory should refer to			
	fference between the procedure/equipment in the standard shall take precedent.	n the produc	ct standard and that in the test	method standard, the
	ncouraged to highlight individual situations in ion for Use sheet can be raised for each occ		mation is missing from the proc	luct standard so that a



PPE-R/01.008	
Version 1	

Number of pages: 1	Approval 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 SE	EN/prEN: EN 443 : 2008	Other:
Article: Annex: Clau	use: 5.7	
Key words:		
Retention system effectiveness, Pre-requisites		
Question:		
EN 13087-5 : 2000 clause 4 point f) requires the performance standard to	specify the "direction of application of	the force". EN 443 : 2008
clause 5.7 does not do this, so how shall the force be applied?		
Solution:		
The force shall be applied both to the front and rear in two separate tests, $ \\$	although the order is not critical.	
The single sample specified by EN 443 : 2008 table B.1. shall be used for	both tests.	
The single sample must satisfy the requirements for both the front and rea	er tacts in order that the model he con-	sidered acceptable
The single sample must satisfy the requirements for both the front and rea	ar lests in order that the moder be cons	sidered acceptable.



PPE-R/01.009 Version 1

^	RECOMMENDA	TION 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 443 : 2008	Other:
Article:	Annex:	Clause: 5.4, 5.5	
Key words: Shock absorption, Resis	stance to penetration		
	itted or supplied with face protectors that are on "non-integral protective functions", how shou stance to penetration"?		
Solution:			
	be placed in its "in-use" position.		



PPE-R/01.011 Version 1

RECOMMENDATION FOR 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 30.06.2023
Question related to F	PPE Regulation PPE Guidelines	⊠ EN/prEN	I: EN397:2012+A1:2012	Other:
Article:	Annex:	Clause: 5.1.	4	
Key words:				
Chin strap anchorage				
Question:				
Where are acceptable poi	ints of breakage for this test?			
Solution:				
Solution:				
Parts passing under the codevices should not be accommod to the code of the co	hin are considered the chinstrap and failu cepted.	re shall not oc	cur 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 device.	ting a reusable	disconnection that is intended	to release under load,
If such devices are not pro	ovided, failure shall occur for parts that do	not constitute	the chinstrap passing under the	ne chin (refer above).
There shall be no breakaç	ge of strap material.			
Rationale:				
chinstrap anchorage. Pro	nes that the helmet shell shall be fitted with oduct innovation since the conception of E there the attachment begins can be unclean usable disconnection point for the chinstral	N397 has resu ar due to the va	ulted in an increasingly diverse aried designs of products, some	range of products. Where



PPE-R/01.012
Version 1

	RECOMMENDA	ATION FU	ス いうこ	
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 sec	condary impacts, i.e. after bounce, be conside	ered when m	aking assessment?	
Solution:				
No.				
Values obtained during	secondary impacts, i.e. after bounce, shall b	e disregarde	h.	
values obtained daring	sociation and secured, included secured, chair s	o alologalao		
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PPE-R/01	.013
Version 1	

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/prEN: EN 1078:1997 & 2012	☐ Other:
Article: Annex:	Clause: 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?	es not sit on the jawbone, is it essential that	t the fastening device is
Solution:		
No.		
The primary purpose of this requirement is to ensure that the device	does not sit on the jawbone.	
Buckles positioned under the chin or around the jaw area would need would not sit on the jawbone would not need to be moveable.	to be moveable. Buckles positioned 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	ccept 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 standa	rds that includ	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

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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: EN 1077:2007	☐ Other:
Article:	Annex:	Clause: 5.4	4	
Key words:				
Test area				
Question:				
How should the specified test area be marked on the helmet?				
Considerations: EN1077:2007 is the only helmet.	standard (in the field of head pr	rotection) that defines th	e impact test area on the headi	form rather than on the
	the test area has to be reprodu t test areas being marked on th			ow this should be marked,
Solution:				
The test area should be	projected horizontally from the h	eadform to the outer he	lmet surface.	
side corners (points C, D	test area shall be projected ont , E) directed perpendicular to the lane. Then the points marked on	e vertical longitudinal pla	ane, while for front and rear po	ints (points A' and B) along



PPE-R/01.016
Version 1

	RECUIVIIVIENDA	THON FO	K USE	
Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	o 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	97 & 2012	
Article:	Annex:	Clause: EN	N 397 – 6.6.2, 6.7.2 / EN 812 -	- 6.5.2, 6.6.2
Key words:				
Shock absorption, Re	sistance to penetration, impact velocity			
Question:				
Is 0.5% the correct vadrop height?	llue for the maximum permitted difference betw	een the actu	ual impact velocity and the theo	retical velocity for the stated
Solution:				
No, the permitted diffe	erence should be 5% maximum.			
0.5% is impractical an	nd all other TC158 standards that specify a simi	ilar requirem	nent state 5%.	



PPE-R/01.017	7
Version 1	

Number of pages: 1	11200		Approval stage :	Approved on :
Origin : Vertical Group	1			
ongin. Voludui Oloup	•		∀ Vertical Group	21.04.2018
			☒ Horizontal Committee☒ EU PPE Working Group	21.04.2018 29.11.2019
Overting what I is	DDE Damilettere			
Question related to	PPE Regulation		:N: EN 397:1995 & 2012	Other:
Article:	Annex:	Clause: 5.	2.1	
Key words:	no.			
Very low temperature, p	pre-conditioning			
Question:				
Is it necessary to perfor been requested?	m shock absorption and penetration testing a	t -10°C if th	e very low temperature condition	ning at -20°C or -30°C has
0.1.11				
Solution:	1000			
Yes, because testing at	-10°C is a mandatory requirement.			



PPE-R/01.	019
Version 1	

Numb	er of pages: 1			App	roval stage :	Approved on :
	igin : Vertical Group 1		•			
	·				Vertical Group Horizontal Committee	21.04.2018 21.04.2018
					EU PPE Working Group	29.11.2019
Quest	ion related to	☐ PPE Regulation	⊠ EN/prE	N: EN	N 443:2008	☐ Other:
Article	:	Annex:	Clause: 4.	11 Fla	ame resistance	
17						
Key w		ıg; Flame resistance				
Helline	to for the rightin	g, i lame resistance				
Quest	ion:					
		te the tests described in EN 443:2008 "Helme				
		by the tests described in EN 136:1998 clause ording to clause 6 of the standard with "EN44"		8.5.2	2 during an Approval and E	U-Certification however
	.9					
Solution	on:					
No.	octo in EN 443:20	08 clauses 4.11 and 5.13 are completely diffe	rant from th	o toc	ts in EN 136:1008 alausas	7.6.3 and 8.5.2 with regard
to	:515 III EN 443.20	oo clauses 4.11 and 5.15 are completely diffe	rent nom ti	ie les	is III EIN 130.1990 Clauses	7.0.5 and 6.5.2 with regard
-	time of impact,					
-	distance of the b	ourners 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 Group ✓ 21.04.2018 ✓ 21.04.2018 ✓ 29.11.2019 	
Question related to PPE Regulation	⊠ EN/prEN: EN 397:2012 + ☐ Other: A1:2012	
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	ne liquid metal is poured, or shall it apply to other areas of the helm	et?
Solution:		
Assessment shall apply to the shell of the helmet. With reference to gutter.	o the definition of clause 3.4, 'brim', the shell does not include a brir	n or
Reason: The 50mm radius circle is just a target point for pouring of the meta	l.	



PPE-R/01.022
Version 1

Number of pages: 1			Ann	roval stage :	Approved on :
<u>. </u>			, ,		7 IPP10104 011 .
Origin : Vertical Group 1				Vertical Group	21.04.2018
			_	Horizontal Committee EU PPE Working Group	21.04.2018 29.11.2019
_					
	PPE Regulation	⊠ EN/prE	N: Va	arious (see below)	Other:
Article:	Annex:	Clause: Va	arious	s (see below)	
Key words:					
Test position, Penetration	on testing, Molten metal testing				
Question:					
Certain standards make cap is not defined, so wl	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 wi	natione top :				
Solution:					
	ump cap is that point on the outside surface of				
	the helmet/bump cap be fitted normally to a		f app	ropriate size. This may, or	may not, coincide with the
riighest point of the hein	net/bump cap when fitted to the test headforn	II.			
This applies to the following standards/clauses:					
This applies to the following standards/clauses.					
EN 397:2012 + A1:2012	2 clauses 6.7.3 & 6.12.3				
EN 812:2012 clause 6.6					
EN 12492:2012 clause 5.6.1					
EN 14052:2012 +A1:20					



PPE-R/01	.023
Version 1	

	KECCIVIIVIENDA	111011101	, U	<u>UL</u>	
Number of pages: 1			App	proval 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/prE	N: E	N 12492:2012	Other:
Article:	Annex:	Clause: 5.6	5		
Key words:					
Penetration testing, samp	ole restraint				
Question:					
How much restraint shall	be used to hold a sample in position for test	ting?			
Solution:					
As little restraint as possible shall be used, but enough to ensure that the test is performed correctly. In some cases, this may be a reasonably significant amount of restraint.					
Rationale:					
For some designs of helmet, rotating the helmet upon the test block in order to target different parts of the 50mm radius circle may result in the test block being able to pass between the harness so that the shell rests on the test block. This situation would not occur when such a product was fitted on to a person or a full test headform. This was agreed to be an unfair condition and that sufficient restraint strapping should be used to prevent such occurrence during the test.					



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 EN397:20	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 requirements provided with two chin-straps, one to satisfy the retention system requirement requirements of EN12492. In such a case, the chinstraps must be very clearly user instructions shall state clearly how the helmet is to be configured in order	ts of EN397 and the other to satisfy y labelled as to the applicability for	y the retention system



PPE-R/01	.025
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 + A1:2012	Other:
Article: Annex:	Clause: 6.12.2	
Key words:		
Molten metal test, orientation		
Question:		
In what orientation should the helmet and headform be placed whe	en the test is performed?	
Solution:		
The headform should be vertical and the helmet fitted in a normal v	wearing position	



PPE-R/01	.026
Version 1	

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 1		21.04.2018
	☑ Horizontal Committee☑ EU PPE Working Group	21.04.2018 29.11.2019
Question related to PPE Regulation		☐ Other:
Question related to PPE Regulation	☑ EN/prEN: EN 397:2012 + A1:2012	
Article: Annex:	Clause: 4.9	
Key words:		
Ventilation, area measurement, covers		
Question:		
Which area of ventilation should be assessed when the helmet include the cover/external layer is not the same area as the aperture(s) in the		he area of the aperture(s) in
Solution:		
The area of the smallest aperture(s) should be assessed, whether thi	s/these be in the cover/external layer or in	the internal layer.



PPE-R/01.0)27
Version 1	

	RECUIVIIVIENDA	ATION FO	K U	3E	
Number of pages: 1			App	proval 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/prE	N: E	N 443:2008	Other:
Article:	Annex:	Clause: 5.4	4.1		
Key words:					
Shock absorption, headfo	orms				
Question:					
For shock absorption test headforms that comply or	ting of area 1a, should the headforms compl nly with EN 960:1994?	oly with the re	equir	ements of EN 960:2006, or	is it acceptable to use
Solution:					
The headforms should co	emply 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.					
Therefore, the interpretation has been made that testing should be performed in accordance with EN 13087-2:2000, but using equivalent headform sizes complying with EN 960:2006.					



PPE-R/01	.028
Version 1	

Number of pages: 1	, , , , , , , , , , , , , , , , , , , ,		App	roval stage :	Approved on :
Origin : Vertical Group 1				Ŭ	11
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 443:2008	Other:
Article:	Annex:	Clause: 5.8			
	,				
Key words:					
Retention system streng	th, headforms				
Question:					
For retention system stre headforms that comply of	ength testing, should the headforms comply with FN 960:19942	with the req	uirem	nents of EN 960:2006, or is	it acceptable to use
neadionno that comply t	Silly Will Liv 300.1354:				
0.1.1					
Solution:	comply with EN960:2006.				
The fleadionnis should o	omply with EN960.2006.				
Rationale:					
	requires testing to be performed in accordar ding to referencing rules, it could be assumed				
However, EN 443:2008	itself makes dated reference to EN 960:2006	i.			
Therefore, the interpreta headform sizes complying	ation has been made that testing should be peng with EN 960:2006.	erformed in	acco	rdance with EN 13087-5:20	000, but using equivalent



PPE-R/01	.029
Version 1	

	INLCOMMENDA	ATION TO	١ ٠	JL	
Number of pages: 1			App	proval 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	2.3 d))	
Key words:					
Marking					
Question:					
In clause 7.2.3 d), is the	e reference to clause 7.1 correct?				
Solution:					
	e to clause 7.2.2. instead				
.,					
Rationale:					
	s the significance of the markings under claus bean Standard', and requiring the significance				
EN 397:2012 + A1:2012 must be explained.	2 clause 7.2.3 d) includes a very similar requi	irement, but i	inste	ead it is the optional markin	gs for which the significance
It has been interpreted	that the requirement in EN 812 was intended	d to be of a si	mila	r to that in EN 397.	



PPE-R/01	.030
Version 1	

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 1		21.04.2018
	☑ Vertical Group☑ Horizontal Committee	21.04.2018
	⊠ EU PPE Working Group	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 including 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

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/prE	N: EN1384:2012	☐ Other:
Article:	Annex:	Clause: 4.	1	
Key words:				
Thickness measureme	ent, Area of protection			
Question:				
For measurement of the made?	nickness of protective padding in the area of p	rotection but	t outside of the test area, where	should this measurement
Solution:				
	uld be made 12mm up from the lower edge o the minimum thickness measured within zon		llustrated below (see also Figur	e 1 of EN1384) and shall
2006.1				

Rationale:

The test area equates to zone 1 of the illustration. The minimum thickness within this area should be measured to determine the minimum thickness to be used for comparison purposes.

The minimum area of protection comprises zones 1 and 2 of the illustration.

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

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

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

It has been interpreted that it should be 12mm from the lower edge of the area of protection, as illustrated above. The minimum thickness along this line should be compared to the minimum thickness in the test area (zone 1).



PPE-R/01.032 Version 1

	RECOMME	ENDATION FO	K 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/prE	N: EN 1384:2012	Other:
Article:	Annex:	Clause: 6.2	<u>)</u>	
Key words:				
Test sequence, sample re	estoration			
Question:				
Is it acceptable to restore	samples following reversible damage	je before performin	g the next test in the test seque	ence?
Caluffee				
Solution: No, samples should be te	ested without restoration			
Tvo, samples should be to	Stod Without restoration.			
Rationale:				
	occur during testing which could influe		of tests later in the test sequence	ce, e.g. detachment of
•	nave a detrimental effect on penetration a sequence of testing just to minimise		moles required for a test progra	amme
	ed in this case that the sequence of to			
	following each test before moving or			



PPE-R/01.033 Version 1

Approval stage :	Approved on :
✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
N/prEN: EN 14052:2012 + 012	Other:
se: 5.2.2	
0	✓ Vertical Group ✓ Horizontal Committee ✓ EU PPE Working Group N/prEN: EN 14052:2012 +



PPE-R/01	.036
Version 1	

Number of pages: 1			App	proval stage :	Approved on :
Origin : Vertical Group 1				Č	
д тогасы стоир				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: E	N 13484:2012	Other:
Article:	Annex:	Clause: Fig	gure	 2	
Key words:					
Extent of coverage					
Question:					
Is the dimension of 25,5	mm between points D & E correct?				
Solution:					
No, the drawing includes	s an error.				
, a a. a g					
The 25,5mm dimension	should be drawn between the vertical transverse	erse plane a	and p	ooint E.	
Rationale:					
EN 13484:2012 figure 2	places point E at 25.5mm behind point D, bu	ıt also behir	id the	e vertical transverse plane.	
This is in contradiction	because 25,5mm behind point D would be in	front of the	verti	cal transverse plane	
Triis is in contradiction, i	because 25,5mm bermia point b would be in	none or the	VOILI	car transverse plane.	
EN 1077:2007 figure 1 is	s very similar and shows point E positioned 2	5,5 mm bel	nind t	the vertical transverse plan	e.



PPE-R/01.	037
Version 1	

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	1			
g			∀ 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: EN 1385:2012	Other:
Article:	Annex:	Clause: Cl	ause 5.2 & Figure 1	
			- -	
Key words:				
Coverage				
Question:				
Should point C be the mid-point of A-Z when measured over the surface of the headform, or when projected from the side?				
Solution:				
Point C should be the mid-point of A-Z when measured over the surface of the headform.				



PPE-R/()1	.038
Version	1	

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 1		21.04.2018
	☑ Horizontal Committee☑ EU PPE Working Group	21.04.2018 29.11.2019
Question related to PPE Regulation	☑ EN/prEN: EN 1385:2012	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	from?	
0-1-#		
Solution: The 600mm should be measured upwards from the reference plane.		
The decimin should be incubated upwards from the reference plane.		
Rationale:		
Mills are former as to EN 4070-0040 former form AA live over an advantage	have a secular to the description	
With reference to EN 1078:2012 figure 5, an AA line was marked to s	snow a section in the drawing.	
The AA line was marked erroneously in figure 4 of EN 1385, as no se test require the 600mm vertical dimension to extend upwards from the		er standards that include this
·	,	



PPE-R/0	1.039
Version 1	

Number of pages: 1			Approval 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: EN 397:2012	Other:
Article:	Annex:	Clause: 7.	 1 f)	
Key words:				
Helmet shell, Materials,	Marking			
Question:				
In the case of a helmet f abbreviation of the mate	for which the exterior comprises multiple com	ponents of	different materials, what is the s	hell for which the
	mai shall be marked:			
Solution:				
The shell shall be considered predominant component	dered to be the predominant component of th t shall be marked	e exterior o	f the helmet and an abbreviatior	n for the material of that
prodominant component	tonali 20 manoa.			
	aterials of other components may also be ma	rked, howe	ver, the abbreviation used must	match the material of the
component upon which	it is marked.			



PPE-R/01.04
Version 1

Number of server 4		A
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 078+ A1:2012 / EN 1385: 2012	Other:
Article: Annex: C	lause: See below	
Key words:		
Artificial ageing, ultraviolet irradiation		
Question:		
The following standards/clauses specify the use of a 125W xenon-filled	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	ce 2012).	
What is an appropriate alternative?		
Solution:		
A 150W lamp used for 40h at a distance of 250mm.		
·		



PPE-R/01.0	42
Version 1	

	RECUIVIIVIENDA	ATION FO	K USE	
Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 1				21.04.2018
			Horizontal Committee	15.09.2019
				14.03.2022
Question related to P	PPE Regulation PPE Guidelines	⊠ EN/prE	N: Various	☐ Other:
Article:	Annex:	Clause:		
Key words:				
Lateral crushing, deforma	tion			
Question:				
When a product is fitted w deployed position?	vith an integral visor, should the helmet be	tested for la	teral deformation/crushing with	the visor in the stowed or
asprojea position.				
This relates to the following	ng standards:			
EN397:2012 + A1 clause	5.2.4			
EN443:2008 clause 4.4				
EN14572:2005 clause 5.7	,			
EN 16473:2014 clause 5.8	8			
Solution:				
Testing should be perform	ned with the visor on both positions.			
A further sample should b	e used for testing with the visor in the second	ond 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		
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 har	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 above it (i.e. restricting ventilation), then test with the visor deployed and subtract the thickness of the visor. If the visor seals off the area, then measure with the visor stowed.			
Shock absorption - test with the visor in BOTH positions, but not repe	eating 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	

NEOOMINENDA	TION TOK OOL		
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 (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:			
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 con	uld be removed for the	



PPE-R/01	.046
Version 1	

Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group 1		∨ Vertical Group	24.05.2018
		Horizontal Committee	15.09.2019
		EU PPE Expert Group	14.03.2022
Question related to PPE Regulation PPE Guidelines	⊠ EN/prEN	N: EN 50365:2002	☐ Other:
Article: Annex:	Clause: 5.4	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 helr	met shell peak".	
What should be done when the product has a small peak or does not	include a pe	eak?	
Solution:			
VG1 considered that marking visibility and legibility were the priority, r	ather than l	ocation.	
In such cases, the marking may be located anywhere on the helmet, μ helmet 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	A	pproval stage :	Approved on :
Origi	n : Vertical Group 1		Vertical GroupHorizontal CommitteeEU PPE Expert Group	24.05.2018 23.09.2020 14.03.2022
Ques	stion related to PPE Regulation PPE Guidelines		EN16471:2014 & 4	☐ Other:
Articl	e: Annex:	Clause: 5.6/5	.7	
Key	words:			
Flam	e resistance, Testing			
Ques How	shall the flame resistance test be performed?			
Solut	tion:			
The	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 any	relevant component.	
3.	The test is an assessment of material and design, so wheneve accessories too.	er possible, actu	ual components shall be test	ted. This applies to
4.	Following 50°C pre-conditioning, the samples shall be allowed	I to return to am	nbient condition before testir	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-integr	protective device	es, such as integral faceshie	
6.	When testing the shell, the instruction not to test within 5mm of	f an edge is de	emed to include edges crea	ted by ventilation features.

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PPE-R/01.049
Version 1

^	RECOMMENDA	ATION FOR	RUSE	
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	☐ EN/prEl	N:	Other:
Article:	Annex:	Clause:		
Key words:				
Industrial safety helmets,	increased ventilation			
Question:				
Industrial helmets which h	nave ventilation greater than that permitted void dangers associated with the accumul	by EN397:20 ation of heat	112+A1:2012 clause 4.9, are re under the helmet during high te	quired in certain work emperature and hard work.
Can such products be cer	tified?			
Solution:				
Such products can be cer	tified using a suitable technical specification	on.		
The failure of such produc	cts to meet the requirement of EN397 claus	se 4.9 require	s that the product marking sha	ll not include EN397.



PPE-R/01	.050
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 14.03.2022
Question related to	☐ PPE Regulation ☐ PPE Guidelines	⊠ EN/prE	N: E	N 1077:2007	☐ Other:
Article:	Annex:	Clause: 4.2	2.1		
Key words:					
Helmets for Alpine S	kiers and Snowboarders with integrated speake	ers			
Question:					
EN1077 clause 4,2,1	includes a note that "Helmets shouldnot sig	gnificantly int	erfer	e with the ability of the use	er to hear".
	ts with integrated speakers, if used inappropriat roperly may be significantly affected, e.g. nearing				ound to be such that ability
How should this pote	ential hazard be addressed when certifying such	products?			
Solution:					
	nould include appropriate warnings in the inform sibility of hearing damage through prolonged ex				



PPE-R/01.05
Version 1

RECOMMENDATION	I OIV 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: Clause	9: 4.7.1	
Key words:		
Headband, Adjustment		
Question:		
Is it acceptable for a product to be available in discrete sizes, with the headb 4.7.1?	and of each size not being adjustal	ole in accordance with
Solution:		
No. A headband that satisfies the requirement of 4.7.1 is required.		



PPE-R/01.052
Version 1

RECOMMENDATION I	OIV 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/p	rEN: EN397:2012+A1:2012	Other:
Article: Annex: Clause:	5.2.4	
Key words:		
Lateral deformation, test plates, positioning		
Question:		
How should the plates be positioned when testing?		
Solution:		
The test laboratory should be careful to position the plates above the brim (as brim. There are often other design features in the area where the plates are to features are not to be considered part of the brim and the plates can be applied	be applied, e.g. section includin	



PPE-R/01.053
Version 1

Number of pages: 1	,		Approval stage :	Approved on :
Origin : Vertical Gro	up 1			21.04.2018 23.09.2020 30.06.2023
Question related to	☐ PPE Regulation ☐ PPE Guidelines	⊠ EN/prE	EN: EN397:2012+A1:2012	Other:
Article:	Annex:	Clause:		
Key words:				
Headband, variants				
Question:				
	at models differing only by way of the headband out full testing on the helmet with each adjustmen			net wheel type, is it
Solution:		tion with the		ible between the different
headband adjustme	ould be tested using the standard sample quanting the variants	des, with the	samples split as evenly as poss	ible between the different

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PPE-R/01.056
Version 1

RECOMMENDATION FOR USE				
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 P	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 prov	vided by other materials, so long as the pa	rt providing t	he coverage was integral to the	e helmet.



PPE-R/01.059

Version 01

	RECOMMENDA	ATION FO	ス いうこ	
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	arious	
Key words: Winter liners				
Question:				
Is additional testing requir	red for a winter liner that is specified by the i	manufacture	r as an accessory to the helmet	?
Solution:				
Yes, depending upon the	performance claims of the helmet or the de	esign of the	liner.	
Performance of the produreviewed with the accessor	nct 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 require	red depending upon the particular winter lir	ner being co	nsidered.	



PPE-R/01.060
Version 1

Number of source 1		Assessed at an a	A d
Number of pages: 1	1	Approval stage :	Approved on :
Origin : Vertical Group 1		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	24.05.2018 23.09.2020 30.06.2023
Question related to PPE Regulation PPE Guidelin	nes 🖾 EN/prEN	l: 16473:2014	☐ Other:
Article: Annex:	Clause:		
Key words:			
Ventilation			
Question:			
Are ventilation holes permitted?			
Solution:			
Yes, but the design of such ventilation features should be over the top of the helmet is prevented.	such that coverage of th	ne area AA' is provided and inq	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/prE	EN:	Other:
Article: Annex: Clause:		
Key words: Wind noise		
Question:		
How should the matter of wind noise be handled during the certification process?	,	
Solution:		
The manufacturer should consider wind noise in their risk assessment and the s Notified Body.	uitability of the risk assessment s	should be evaluated by the
Rationale:		
Wind noise is a problem for users of non-assisted bicycles and electric bicycles, just from speed of travel, but additional noise can be generated by the design of		
An immediate risk is the masking of ambient noise meaning the user cannot heat At this time, in relation to wind noise there is no method specified for determining cycling whilst not wearing a helmet		
cycling willist not wearing a heimet		



PPE-R/01.063

RECOMMEND		
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 the	ne 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 creconfiguration rather than a 'normal-wearing' configuration.	eate a situation where the helmet is tested in	a 'reverse-wearing'



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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	25/06/2021 30/04/2022 31/08/2023
Question related to PPE Regulation PPE Guidelines	EN/prEN:	Other:
Article: Annex: (Clause:	
Key words: Electric bicycles, electric scooters, electric skateboards		
Question:		
Can we accept an application for type examination against (EU) 2016/	425 if the 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 certificati	ion must be sought by the manufacturer w	vhen appropriate.



PPE-R/01.065

RECOMMENDATION 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 Reg	ulation PPE Guidelines	⊠ EN/prE	N: EN443:2008	☐ Other:
Article: A	nnex:	Clause: 4.	13.1	
Key words: Visible damage				
Question:				
Is colour change indication of visib	e damage?			
Solution:				
If the colour change is not associated with softening of the material, the colour change should not be considered visible damage. If the colour change is associated with softening of the material, the colour change should be considered visible damage.				



PPE-R/01.066

RECOMMENDATION 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	⊠ EN/prEN: EN397:2012 + A1:2012	☐ Other:
Article:	Annex:	Clause: 6.6.3a and 6.7.3a	
Key words: Ventilation			
Question:			
How should the headban	d be adjusted to ensure "(minimal) clearar	nce"?	
Solution:			
The headband should no	t be loose, but should be adjusted so that	the headband does not significantly influence	e the test result.



PPE-R/01.067

×	RECOMME	NDATION FOR USE			
Number of pages: 1		Approval stage :	Approved on :		
Origin : Horizontal Co	mmittee	✓ 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: Specificati	on				
Question:					
Is it possible to certify	Is it possible to certify a helmet using EN 50365 if the product meets EN14052 and not EN397 or EN443?				
Solution:					
Yes, and the product	may be marked according to				
EN50365. Rationale					
1. EN14052 was pub	lished later than EN50365.				
•	1052 is closely aligned with that of EN397. roducts tested to EN14052 exceeds those				



PPE-R/01.068

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: EN50365:2002	Other:
Article:	Annex:	Clause: 6.2.1	
Key words: Visual insp	pection, metal parts		
Question:			
May such products inc	clude metal parts, even if those parts are not ex	xposed?	
Solution:			
	to 5.3 is considered incorrect and instead shound ive parts" is taken to apply to all materials of the		2 "Insulating helmets shall



PPE-R/01.069

RECOMMENDATION 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/prE A1:2012	N: EN 14052:2012 +	Other:	
Article:	Annex:	Clause: 5.	2.3 / 6.6		
Key words: Pre-conditioni	ng, delay				
Question:					
delay is reasonable?	The period between removal of the test specimen from conditioning and performing of the retention system release test is undefined. What				
Solution:					
The process should be co	ontinuous with minimal delay before the test	is performed	ł.		



PPE-R/01.070

RECOMMEN	NDATION FOR USE	
Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 1	✓ Vertical Group✓ Horizontal Committe✓ EU PPE Expert Group	
Question related to PPE Regulation PPE Guidelines	☑ EN/prEN: EN 397:2012 + A1:2012	Other:
Article: Annex:	Clause: Various	
Key words: Crown area		
Question:		
What is the crown area?		
Solution: The crown area can be defined as: "area on the upper outside surface of the helmet which lies within on the central vertical axis through the headform on which the helmet which the helmet which lies within a surface of the helmet which lies within a surface with the helmet which lies with lies with lies with the helmet which lies with lies with		as defined in EN960:2006, 2.12)



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Number of pages:	1	Approval stage :	Approved on :
Origin : Vertical Gre	oup 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/prEN: EN 397:2012 + A1:2012	☐ Other:
Article:	Annex:	Clause: 5.1.4, 6.9	
Key words:			
Chin-strap anchora	ge		
Question:			
	elmet include more than two chinstrap anchorag released the artificial jaw?	les. At which stage in the test shall failure of	the anchorages(s) be
Solution:			
	nue until the risk of strangulation has been remo	oved. Normally this will be when anchorages	have failed so as to prevent



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^ X ^	RECOMMEN	DATION 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 30/04/2022 31/08/2023
Question related to	PPE Regulation PPE Guidelines	⊠ EN/prE	N: EN443:2008	☐ Other:
Article:	Annex:	Clause: 4.	14 a)	
Key words: Horizontal f	ield of vision			
Question: From which points show	uld field of vison in the horizontal directions	s be assessed?		
Solution:				
The horizontal field of v	ision should be assessed from points L1 a	and L2 only.		
Rationale				
443:2008 clause 5.16 s	14 specifies requirements for horizontal fie tates that testing shall be performed in acc rizontal field of vision extending from poin	cordance with I		
EN 13087-6:2012 claus should be disregarded.	se 5.4 clearly states that horizontal field of	vision 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			110,110120	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
<u>02.010</u>		including IL/TIL	leakage testing (TIL),	2020.10	21.01.2010	2011112010
		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,	21.04.2018	21.04.2018	29.11.2019
			flammability, head harness			
02.036	01	EN 250:2014	Respiratory Protective	21.04.2018	21.04.2018	29.11.2019
			equipments, Open-circuit			
			self-contained compressed			
			air diving apparatus			
			(SCUBA), PPE			
02.043	01	EN 137:2006	Components Respiratory Protective	21.04.2018	21.04.2018	29.11.2019
02.043	01	LIN 137.2000	Equipments, flame	21.04.2010	21.04.2010	29.11.2019
			engulfment test, bulky			
			devices			
02.044	01	EN 13794:2002	Respiratory Protective	21.04.2018	21.04.2018	29.11.2019
		EN 13274-2:2001	Equipments, practical			
			performance tests			
02.046	01	EN 13794:2002	Self-contained closed-	21.04.2018	21.04.2018	29.11.2019
			circuit breathing apparatus			
			for escape (SCCBA); Carbon-dioxide (CO2)			
			content			
02.047	01	EN	Powered helmet/hood, filter	21.04.2018	21.04.2018	29.11.2019
<u> </u>		12941:1998/A2:20	connection			
		08				
02.048	01	All standards	Equipment standard, test	21.04.2018	21.04.2018	29.11.2019
			standard			
02.049	01		Children, EN testing, EU	21.04.2018	21.04.2018	29.11.2019
02.054	01	EN 440,4000	certification	24 04 2049	21.04.2018	29.11.2019
02.051 02.054	01 01	EN 140:1998 All standards	Valves, replacement Total Inward Leakage,	21.04.2018	21.04.2018	29.11.2019
02.034	01	All Statiualus	talking passage	21.04.2010	21.04.2010	29.11.2019
02.055	01	EN	Marking, filter packaging	21.04.2018	21.04.2018	29.11.2019
<u> </u>		14387:2004/A1:20	maning, inter pasting			
		08				
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	Choice of standard	21.04.2018	21.04.2018	29.11.2019
		149:2001/A1:2009				
		EN				
		1827:1999/A1:200 9				
02.062	01	EN	Filter, clogging, penetration	21.04.2018	21.04.2018	29.11.2019
02.002		143:2001/A1:2006	test	21.04.2010	21.07.2010	20.11.2019
02.063	01	EN 14387:2008	Carbon Monoxide Filter	21.04.2018	21.04.2018	29.11.2019
			Marking			
02.073	01	EN 14594:2018	Compressed air supply	08.08.2019	15.09.2019	14.03.2022
			tube, Resistance to kinking			

Status: February 2024

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

Status: February 2024



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 equipment?		
e. g. a turbo unit with a series of different facepieces / hoods and filter	ers.	
How many tests should be performed?		
Solution:		
Perform as many tests as needed to verify the conformity of all ele verify the conformity of the complete equipment.	ments in the different versions of the equi	pment also perform tests to
Comment:		
This suggestion was made that Notified Bodies should make th testhouses.	eir own decisions to establish the same	e testing procedures for all



PPE-R/02.015
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	eakage testing	(IL)	
, ,	age testing the EN standards of RPD typicall d in several sizes, should a test house select	• •	,	een tested?
are tested for inward le Sufficient specimens s	being submitted for type examination in more eakage. hall be provided to enable a total of 10 IL / T to test all sizes of RPD.			e arranged so that all sizes



PPE-R/02.018 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: EN 149:2001	Other:
Article:	Annex:	Clause:		
Key words: Modified P	PE			
Question:				
If an existing, certified,	filtering facepiece (EN 149:2001) is modified rd leakage testing be used to assess complian			ed panel (fewer tests
Solution:				
No, it is not possible to performance.	reduce the number of tests because the addi			



PPE-R/02.027 Version 1

number	or 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 fa	ailure?		
Q4	May the mask be removed from the head form between the flammability test and the leak tightness test?			
Q5	If a product satisfies the post-flammability leak tightness test, even with mechanical damage (which may include breakage) to the			
	head harness, is this a failure?			
Solution:				
A1	No.			
A2	The laboratory shall decide on the appropriate orientations head harness, are exposed directly. Three samples shall be		·	·
A3	Yes. If burning of the head harness for more than 5s result	ts from indire	ect exposure, then this is a failu	re.
A4	Yes because this is the practice of the majority of the test	houses.		
A5	No.			



PPE-R/02.036
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/prE	N: EN 250:2014	Other:
Article:	Annex:	Clause:		
Key words: Respiratory F	Protective equipments, Open-circuit self-con	ntained comp	oressed air diving apparatus (SC	CUBA), PPE Components
Question:				
	or, as a SCUBA sub-assembly consisting o erchangeable component of a PPE in the m			
disassembled withou	st cases, a pressure reducer, a medium pre t using special tools and can apparently be ponents of a PPE in the meaning of Art. 3 §	replaced wit	h other similar devices, can the	
Solution:				
specifically designed	tor can be mounted on a SCUBA and remo and manufactured to be interchanged with provided with its user's manual.			
	re reducer, a medium pressure hose or a deferming to be defermed t			nd without using any special
In fact the calibration	of a diving regulator is performed at factor	y level exclus	sively on the assembled device.	
	, a medium pressure hose or a demand valum the manufacturer stating at least the follow		ne on the market they will be ac	companied by an
	nat the product is a spare part of a specified formation leaflet will give clear reference to			
	onents of a diving regulator are designed to rformed and the need for any subsequent r		by the user, the manufacturer	shall provide clear guidance



PPE-R/02.043	
Version 1	

 ✓ Vertical Group ✓ Horizontal Committee ✓ FU PPF Working Group 	21.04.2018
Z 2011 Z Womang Group	21.04.2018 29.11.2019
N: EN 137:2006	Other:
ces	
plates. the burner plates and the nea	rest point of the device
nearest point of the device and which shall remain in the centr	
	EU PPE Working Group N: EN 137:2006 Ces plates. the burner plates and the nea learest point of the device and



PPE-R/02.044 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/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.				
1				



PPE-R/02.046 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 13794:2002	Other:		
Article:	Annex:	Clause:			
Key words: Self-contain	ned closed-circuit breathing apparatus for esc	cape (SCCBA); Carbon-dioxide (CO2) conte	ent		
Question:					
	ent in EN 13794:2002, clause 6.19.3, "After the ot exceed 3.0 percent by volume", apply for the other than the content of the				
Solution:					
Test as if a new paragr	aph would be inserted after the first sentence	in clause 6.19.2, 2nd paragraph so that the	e wording		
	duration and up to a breathing resistance of f-contained closed-circuit breathing apparatu		3.0 percent by volume"		
Perform the tests in accordance with clause 7.10.1 of the standard.					
Explanatory statement	:				
Since SCCBA normally indication for the exhau	don't include a warning device which allows stion of oxygen is a high inhalation resistance	the user to notice that the rated duration is e.	exceeded, the only		
	tion Annex II, clause 1.2.1 "Absence of inherent to create risks or other nuisance factors und		PE must be designed and		
	as long as it supports breathing, regardless situation. An exceedance of the 3 percent by				



PPE-R/02.047
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 12941:1998/A2:2008	Other:
Article:	Annex:	Clause:		
Key words: Powered he	elmet/hood, filter connection			
and that the system is	08 requires that a hood/helmet without integr designed in such a way that it shall not be po tly" also exclude a design where a connection	ossible to con	nect a filter directly to the hood/	helmet. Does the
	considered as an extension of the hood/helm see clause 6.3.1 in EN 12941:1998/A2:2008		ore the thread restrictions shall	be applied also to the end



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	rification.



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 PPE Regulation	☐ EN/prEN:	Other:
Article: Annex:	Clause:	
Key words: Children, EN testing, EU certification		
Question:		
How to deal with EU certification request for Respiratory Protective De	evices specially designed for children? (i.e	. based on EN 149)
Solution: The PPE regulation does not exclude PPE for children. VG2 considers that the RPD standards were not written with consider Certification would be possible according to just the PPE regulation.	ation 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 ✓ Horizontal Committee ✓ EU PPE Working Group ✓ 21/04/2018 ✓ 21/04/2018 ✓ 29.11.2019
Question related to PPE Regulation ⊠ E	N/prEN: EN 140:1998 ☐ Other:
Article: Annex: Claus	se: 6.12.1
Key words: Valves, replacement	
Question:	
Must valve assemblies be able to be replaced as required by clause 6.12.1	?
(The wording of clauses 6.9 and 6.12.1 seem incompatible in the case of in	ntegral components of inhalation and exhalation valves.)
Solution:	
No. If any components of valve assemblies are not intended by the manufacture and the second	acturer to be replaced, that is acceptable.
Reason: EN 136:1998 has corresponding requirements in clause 7.10 and clause 7. compared to EN 140:1998 clause 6.12.1 which make the requirements con This additional wording is underlined below: "Valve assemblies shall be such that they can be readily maintained and if	npatible.
EN 140:1998 clause 6.12.1 should be read as if including the additional wo	rds.



PPE-R/02.054 Version 1

Number of pages: 1	Δ	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 volu	ume so that an a	adjacent colleague would be a	ble to hear your words.
You should not introduce prolonged pauses into the speaking, exc			,
The exercise will require increased effort.			
Whilst your breathing may follow punctuation of text, you are free t	o breathe more	frequently.	
It is not intended that you should be over-exerted and struggling to	breathe during	the exercise."	



PPE-R/02.05	0
Version 1	

Number of pages: 1	1 TEOCHIMEIND		۸۸۲	oroval stage :	Approved on :
Number of pages: 1			App	proval stage :	Approved on .
Origin : Vertical Group 2			\square	Vertical Group	21.04.2018
				Horizontal Committee	21.04.2018
			\boxtimes	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			
Key words: Marking, filter	packaging				
Question:					
Clause 8.3 specifies "The	e filter package shall be marked at least wi	th the followin	ng inf	formation:"	
Upon which part of the filt	ter package should the markings be given	?			
Colution					
Solution:	policy to the employer agreement like a result.	مام ممارحت			
	pplied to the smallest commercially availab	-		Character Colored Control	
it is accepted that the small	allest commercially available package is n	ot always the	mos	st immediate packaging.	
Pagan:					
Reason:	ido cimilar requiremento, o a EN 142-200	0 alauca 0 4	rofo	to marking of the smallest	commercially sycilable
other standards that inclupackaging.	ude similar requirements, e.g. EN 143:200	o clause 9.4,	retel	to marking of the smallest	commercially available
paramagning.					



PPE-R/02.058 Version 1

Approval stage :	Approved on :
✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
prEN: All Standards	☐ Other:
essment for each clause?	
	✓ Vertical Group



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 🖂 E	N/prEN: EN 137:2006	Other:
Article: Annex: Claus	se: 7.4.1.1 & 7.4.1.2	
Key words: Resistance to temperature		
Question:		
In the case of apparatus incorporating wrapped composite pressure vessels apparatus, or just to the cylinder(s)?	s, does the storage time of 12 hours	apply to the whole
Solution:		
The storage time applies to the whole apparatus.		



PPE-R/02.060 Version 1

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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		
Question:			
	s to the requirements for breathing resistanc fore not to have operated 'trouble-free'?	e, can other defects result in the apparatus	being considered to have
Solution:			
Yes.			
	ivates during the test at pressures above the unctioned and therefore not to have operated		apparatus should be
If leaks are detectable (e 'trouble-free'.	ven by hand), the apparatus should be cons	idered to have malfunctioned and therefore	e not to have operated
This is not intended as a 'trouble-free'.	n exhaustive list as other malfunctions may b	be observed that are symptomatic of the ap	oparatus not operating



PPE-R/02.06	1
Version 1	

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 2	2			
0			∀ Vertical Group	21.04.2018
			☒ Horizontal Committee☒ EU PPE Working Group	21.04.2018 29.11.2019
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	which both EN 149:2001/A1:2009 or EN 182	7:1999/A1:20	09 could be considered an appro	priate choice of standard?
Solution:				
	nt the scope and description of EN 149:200 n standards could be considered appropriate		nd EN 1827:1999/A1:2009, in the	circumstance that all of
	stantially, but not entirely, of filter material			
The mask does not include				
	-usable frame/grid to hold the filter			
The harness is attached	d 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/()2.	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/prE	N: EN 143:2001/A1:2006	☐ Other:
Article:	Annex:	Clause:		
Key words: Filter, clogging,	penetration test			
a) test until 120 mg loadirb) or the penetration is m	g test the penetration test has to be peng of aerosol (NaCl and paraffin oil) easured as the average over a time of the penetration be measured?			testing time is.
Solution:				
·	ogging is measured as the average on the clogging is measured until 120 mass.	•	·	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	⊠ EN/prE	N: EN 14387:2008	Other:
Article:	Annex:	Clause: 1		
Key words: Carbon Mo	noxide Filter Marking			
Question:				
	mixed marking of multi-type gas filters accord andard than EN 14387:2008?	ing to EN 14	l387:2008 including a Carbon n	nonoxide (CO) marking
Solution:				
	the Scope "Filters for use against CO are exc	luded from t	his standard."	
A mixed marking is not				
An additional, clearly se	eparated 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	rEN: 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 betwee position nof the hose clamps?	een 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.		



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 r	mass of test aerosol for exposure test			
Question:				
According to EN 143:2	2021 para 6.12, Exposure tests shall be carr	ried out.		
Mass of test aerosol is	s a pre-requisite of EN 13274-7:2019 (para4)).		
Mass of test aerosol is	s not specified in EN 143:2021.			
What is the mass of te	est aerosol to use?			
Solution:				
The mass of test aeros	sol to use during exposure tests is 120mg.			
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Version 1

	INCOMMEND	ATTOM TO	(OOL	
Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Gro	oup 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	N: EN 143:2021	☐ Other:
Article:	Annex:	Clause:		
Key words: condition	ning sequence reversed			
Question:				
	nditioned filter shall be tested after the temperat g in accordance with 7.4.2	ure conditionin	ng in accordance with 7.4.1 fol	lowed by the mechanical
In previous version temperature conditi	of the standard EN 143:2000+A1:2006, filter sha	all be tested a	fter mechanical strength condi	tioning followed by
The conditioning se	quence is reversed.			
For filter already tes according to EN 14	sted according to EN 143:2000+A1:2006, due to 3:2021?	of this conditi	oning sequence reverse, do w	e have to repeat the tests
Solution:				
The modification of	the conditioning sequence is an alignment with	ISO 17420-2.		
	not a modification of the state of the art.			
1	o repeat tests due to the modification of condition	ning sequence).	
It can be necessary	to repeat tests for other reason			



PPE-R/02.082

Version 1

RECOMME	NDATION FOR 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/prEN: EN 143:2021	☐ Other:		
Article: Annex:	Clause:			
Key words: Storage test, use of "for single shift use only" pictog	ıram			
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 Exposu	re test (5.4 of EN 13274-7:2019) and Storage t	est (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 s	storage, be classified as reusable and symbol o	f §3.2.2 shall not be used?		
Solution:				
All particles filters shall meet the requirements after storage tes	ts.			
If a manufacture still wants to indicate that single shift use is rec EN 143:2021.	commended, the manufacturer should use the p	pictogram defined on 3.2.2 of		
The single shift use shall be clearly and completely defined in the instruction for use.				



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Version 1

RECOMMENDATION FOR USE

Number of pages: 1			Approvai stage :	Approved on :
Origin : Vertical Grou	ıp 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	N:	☐ Other:
		EN 149:20	01+A1:2009	
Article:	Annex:	Clause:		
Key words: Tempera	ture Conditioning, Mechanical Strength, Con-	dition of specir	nen	
Question:				
	ondition of filtering half mask for Mechanical	Strength and T	emperature Conditioning acco	rding 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.



PPE-R/02.084

Version 1

	RECOMMENDATION FOR USE							
Number of pages: 1				Approval stage :	Approved on :			
Origin : Vertical Grou	up 2			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	29/04/2022 31/05/2023 31/01/2024			
Question related to	F	PPE Regulation	⊠ EN/prE EN 14387:		Other:			
Article:		Annex:	Clause:					
Key words: specified	d mas	ss of test aerosol for exposure test						
Question:								
According to EN 143	387:2	021, 5.13.2, Exposure tests shall be carri	ed out accord	ing 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 no	ot specified in EN 14387:2021.						
What is the mass of	test	aerosol to use?						
Solution:								
The mass of test aer	rosol	to use during exposure tests is 120mg.						



PPE-R/02	2.085
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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			
Question related to PPE Regulation PPE Guidelines	☑ EN/prEN: EN 14387:2021	☐ Other:			
Article: Annex:	Clause:				
Key words: conditioning sequence reversed					
Question: In EN 14387:2021, conditioned filter for inhalation resistance (5.11) and Filter penetration (5.13.2) shall be tested after the temperature conditioning in accordance with 5.10.1 and 6.4.1 followed by the mechanical strength conditioning in accordance with 5.10.2 and 6.4.2 In previous version of the standard EN 14387:2004+A1:2008, for the same tests, filter shall be tested after mechanical strength conditioning followed by temperature conditioning. The conditioning sequence is reversed.					
For filter already tested according to EN 14387:2004+A1:2008, duraccording to EN 14387:2021?	e to this conditioning sequence reverse, do v	we have to repeat the tests			
Solution: The modification of the conditioning sequence is an alignment with This modification is not a modification of the state of the art.	n ISO 17420-2.				
It's not necessary to repeat tests due to the modification of conditional lt can be necessary to repeat tests for other reason.	oning sequence.				



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Version 1

RECOMMENDATION FOR USE

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	02		✓ 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	N:	☐ Other:
		EN 149:20	01+A1:2009	
Article:	Annex:	Clause:		
Key words: colors, app	plied colors			_
A				

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.



Version 1

	RECOMMENDATION FOR USE						
Number of pages: 1				Approval st	age:	Approved on :	
Origin : Vertical Grou	лр 2				l Group ntal Committee E Expert Group	21/04/2023 31/05/2023 31/01/2024	
Question related to	F	PPE Regulation	⊠ EN/prE EN 137:20			☐ Other:	
Article:		Annex:	Clause:				
Key words: Flame en	ngulfr	nent, hood					
The use of a hood to	Question: EN 137:2006 cl 7.4.1.3.1 reports "During this test no helmet shall be fitted to the manikin's head." The use of a hood to protect the harness during the flame engulfment test is not described in EN 137:2006.						
Is it possible to use a	ı hoo	d to protect the harness for the flame eng	julfment test o	onsidering th	ne normal use of th	ie PPE?	
Solution: Yes, the normal firefi	ghte	rs' clothes would include a hood.					
Note: in the draft of p harness.	rEN	137:2022, which refers to §6.2.5 of ISO 1	6900-10:201	5, it is clearly	stated that a hood	I 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



PPE-R/03.032

Version 01

RECOMMENDATION FOR USE

	RECOMMENDATION	OK USL	
Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group 3		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	26/11/2021 30/04/2022 31/08/2023
Question related to PPE Regulation [rEN: ISO 16321 : 2021 N ISO 12312-2 : 2013	☐ Other:
Article: Annex:	Clause:		
Key words: Blue Light Absorption / Transm	ittance, protection against blue light	emitted by natural or artificial so	urces
Question:			
ISO 16321-1:2021 does only establish a re requirement for blue-light absorption / transources. A requirement for the blue-light al requirement for the blue light absorption / t limits are given in any of these standards.	smittance for spectacles and glasses bsorption / transmittance of welding	s intended to protect against radi filters is given in ISO 16321-2:20	ation emitted from artificial 121, 4.3.1.2. Another
What shall be the requirement for the blue- against radiation emitted from artificial sou		spectacles, lenses or glasses inte	ended to provide protection
Solution:			
Which value, either / both the solar blue-lig depends on the intended application.	ht absorption / transmittance or / an	d the blue-light absorption / trans	smittance shall be specified,
If the manufacturer claims that a filter (lens	es, ocular etc) provides a protection	against blue light, either / both t	he 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, tb or tb, of the filter shall not exceed (t + 0,5) %. Where it is claimed that a filter has more than tb % (solar) blue-light absorption, the (solar) blue-light transmittance, tb or tb, of the filter shall not exceed (100.5-tx) %. Either / 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)

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
<u>04.040</u>	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

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
04.051	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
04.055	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



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 21.04.2018 29.11.2019
Question related to PPE Regulation SEN/pri	EN: EN 352-1:2002/ 2002	☐ Other:
Article: Annex: Clause: 4	.3.8 of EN 352-1, 4.4 of EN 138	9-1
Key words:		
Earmuffs with different wearing modes, headband force		
Question:		
The test procedure (measurement of headband force) for earmuffs in different v EN 352-1 and EN 13819-1. How shall the testing of 'headband force' and 'chang different wearing modes?		
Solution: 1. When the change in headband force is checked during mechanical tests, the 2. When measurements of the headband force have to be repeated the earmurents of the headband force have to be repeated the earmurents.	•	



PPE-R/04.006 Version 01

Approval stage : Approved on :
 ✓ Vertical Group ✓ Horizontal Committee ✓ EU PPE Working Group ✓ 21.04.2018 ✓ 29.11.2019
EN/prEN: EN 352 (all parts),
ause: 4.2 (of 13819-2:2002)
3819-2:2002, clause 4.2?
er EN 352 (all parts) are to be tested, the following protocol should
dard, each test subject shall be asked if the specimen fits. If it sted from the panel and replacement provided.



PPE-R/04.007 Version 01

Number of pages: 1			Approval stage :	Approved on :
Origin : VG 4 Hearing μ	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	3 and 4.7	
1/				
Key words:				
Ear-muffs, drop test				
Question:				
	examined for damage after drop test?			
	onanimou ioi damago anoi arop totti			
Solution:				
	PD for damage after drop test, if necessary, th	ne cushions	and/or liners should be removed	d before examination and
then replaced.	_ ioi aamago anoi arop toot, ii nooccour, ii			



PPE-R/04.008 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	<u>2</u>	
Key words:	Landa Permanenta da			
Sound attenuation, ear	olugs in different colours			
Question:				
	measurements be repeated in case an earp	lua ie eunnlia	ed in different colours?	
Shall sound attenuation	i measurements be repeated in case an earp	iug is suppli	ed in different colours:	
Solution:				
	rement should be performed and the samples	used for tha	at measurement should include	all colours
possisse, ene measu	on one of the contract of the			u 00.00.0.



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	Theasurements be penomied using such cre	aiii!		
l				
Solution:				
The sound attenuation	measurements shall be performed without the	e use of suc	h cream.	
l				
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PPE-R/04.010 Version 01

Number of pages: 1	Approval stage :	Approved on :
Origin: VG 4 Hearing protection (submitted by BGIA)	Horizontal Committee 21.0	4.2018 4.2018 1.2019
Question related to PPE Regulation	☑ EN/prEN: EN 352-2:2002 ☐ C	Other:
Article: Annex: II, 1.2.1 C	ilause:	
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		s used to remove the
Solution: The manufacturer should add a warning to the user information: "Warni damage the ear drum."	ng: Sudden or fast removal of the earplugs ou	t 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 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 352-2:2002	Other:
Article: Annex: Cla	ause: 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 can be given. The notified body has to assess the steam of the stea	torage-packaging provided by the man	ufacturer_from case to case.



PPE-R/04.012 Version 01

Number of pages: 1			Approval stage :	Approved on :
		21.04.2018 21.04.2018 29.11.2019		
Question related to	☐ PPE Regulation	⊠ EN/prE	N: EN 352-3:2002	Other:
Article:	Annex:	Clause: 4.3	3.4	
Key words:				
Helmet-mounted earmu	ıffs			
Question:				
	ination fulfilling the requirements "adjustabilit n this combination be tested and sold as an M			< 14 N for the M-size, but >
Solution:				
It was agreed that such	a combination can be tested and sold as an	M-size com	bination 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/prEN: EN 352- ☑ Other: ISO 4869-4 4:2001/13819-2:2002						
Article:		Annex:	Clause:	/ 4.3.3					
Key words: Level-dependent earmuffs, MIRE, measurement noise, volume control									
Question	·								
1	Which test method should be used for the testing? Should MIRE (microphone in real ear) or HATS (head and torso simulator) or ATF (acoustic test fixture) technique be used?								
2	Which tolera	Which tolerances shall be aimed at for the generation of the L-orientated, M- , and H-orientated noise described in EN 352-4?							
3	Which adjus	tment of the volume control shall b	oe used for the testing of	the level-dependent function of	f the earmuff?				
Solution:									
1	The MIRE-technique as described in Annex B of EN 352-4:2001 should be used. In the area of the concha, the microphone, including supporting elements and electrical leads, shall occupy an area not exceeding 25 mm² in the plane perpendicular towards the centre axis of the ear canal (this differs from EN ISO 11904-1). The microphone position shown in Figure 1 a) of EN ISO 11904-1:2002 shall be used, i.e. open ear canal and the port of the microphone shows towards the ear drum and the position is in between the ear canal entrance and the ear drum, preferably near by the ear canal entrance in a distance of a few mm.								
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.								
3	Adjust to ma	ximum volume.							



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:							
Kov words:									
Key words: Custom moulded earplugs									
outom modiada carpi	490								
Question:									
Which qualification is required for a person, who makes impressions of the concha and external ear-canal of the test subjects?									
Solution:									
It should be carried out by a trained specialist for hearing aids 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
] EN/prEN: EN 352-4:2001, 352- ☐ Other: 2008
Article: Annex: II, 1.2 CI	ause:
Key words: Level-dependent earmuffs with integrated broadcast-receiver	
Question: How should level-dependent earmuffs with built-in broadcast-receivers be	pe tested?
Solution: Level-dependent earmuffs with built-in broadcast-receivers should be te	sted 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 broad 8:2008.	cast stations applying the MIRE-technique according to EN 352-
Within a final test all functions of the earmuff shall be set to maximum vo (according to EN 352-4:2001) at criterion level and simultaneously a put is received by the specimen under test. The maximum sound level achiev	olic broadcast station or a corresponding signal of a signal generator
The manufacturer has to give a warning in the user information: "The au	dibility of warning signals at a specific workplace may be impaired."



PPI	E-R/	04.	020
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Version 2

		RECOMMENDA	VIIOIVI OI	` ')L	
Number of pages: 1				Арр	roval stage :	Approved on :
Origin : Vertical Gro	up 4			\boxtimes	Vertical Group Horizontal Committee EU PPE Expert Group	20.05.2021 01.10.2021 18.11.2022
Question related to		PPE Guidelines	⊠ EN/prEN	N: : E	EN 352-6:2002	Other:
Article:	Annex:		Clause:			
Key words:						
Communication earn	nuffs with an audio inբ	out (by wire)				
Question:						
How should commun	nication earmuffs be to	ested? Which requirements	shall be fulfil	led b	y these HPDs?	
Solution:						
One way system:						
1. In addition to th	e requirements found	in EN 352-6:2002, Annex E	3, clause B.3	inpu	t voltages shall be given in	Vrms.
2. Assessment:						
	SPL-limitation test the he level equal to 85 dl	e limiter; the mean plus one B(A) minus 3 dB(A).	standard dev	/iatio	n of the equivalent diffuse-	field related SPL shall
in order not t	o exceed the daily exp	e specification of the manuf posure limit. Two warnings l pairment exists" and "This h	have to be gi	ven i	n the user information like	"When exceeding the
Two way system:						
Check the additional contribution to the SPL by the transmission via the microphone using an artificial mouth according to ITU-T Recommendation P.50 (09/99) and P.51 (08/96) with speech simulating noise according to IEC 60268-1 from 60 to 100 dB(A) in 5 dB- steps.						
The manufacturer ha	as to give a warning in	the user information: "The	audibility of v	varni	ing 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	protection device with audio communication			
Question	:			
i)	Is a hearing protection device (HPD) with audio communica 2016/425?	ation a hear	ing protector within the meaning	g of the regulation (EU)
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?			tal exposure of the user	
Solution:				
i)	i) It is an HPD if the manufacturer declares it and it should meet the requirements 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			out limiter. In case a specific
	essential health and safety requirement "Protection against the harmful effects of noise", clause 3.5 of Annex II of the regulation (EU) 2016/425 on personal protective equipment,			use 3.5 of Annex II of the
	the use has to be restricted to specific applications. These applications have to be specified in the user information and on the packaging. In addition, an appropriate warning and a description of the measures to be taken by the user is required in the user information in order not to exceed the daily limit value.			
İ				



PPE-R/04.027 Version 01

Number of pages: 1			Approval stage :	Approved on :
Origin : VG 4 Hearing p				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:				
vvireiess complete nea	ring protection systems with reproduced sour	nd for enterta	inment	
Question:				
These systems transmi	it signals for example via local induction loaps	s. How shoul	d such products be tested?	
Solution:				
They should be tested	as earmuffs with broadcast receivers (see EN	N 352-8:2008	5, 5.2.3).	



PPE-R/04.036
Version 01

RECOMMENDATION FOR USE

	RECOMMENT	JA HUN FU	N USE	
Number of pages: 1			Approval stage :	Approved on :
Origin: VG 4 Hearing pro	otection (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 13819-2:2002	Other:
Article:	Annex:	Clause: 4.	1.4	
Key words: Insertion loss, asymmetri	c design, electronic earmuffs			
Question:				
The insertion loss is used band flexing, water imme between left and right cup	I to test variations of sound attenuation of rsion,) because conditioned and non-cos. For specific purposes manufacturers pacturer, e.g. left cup with lower sound atte	conditioned spe produce electr	ecimens are tested together. EN onic earmuffs which show differ	I 13819-2 does not separate ent sound attenuation. This
The mean is taken over all cups and the criterion is given in EN 352-1 resp3 as follows: The standard deviation shall not be greater than 4,0 dB in four or more adjacent one-third-octave bands, and not greater than 7,0 dB in any individual one-third-octave band. This criterion may be not fulfilled by the mentioned special earmuffs although the product shows a good design for a specific purpose.			octave band. This criterion	
Solution:				
a case the manufacturer	resp3 to be used for the insertion loss has to include a statement (warning) in the users' safety resulting from the asymme	ne user informa	ation specifying the special purp	



PPE-R/04.037 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	☑ 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 des 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 larger	st diameter shall seal one circular hole.	



PPE-R/04.038 Version 01

RECOMMENDATION FOR USE

Number of pages: 1	Approval stage :	Approved on :
Origin: VG 4 Hearing protection (submitted by BIA, Germany)	✓ Vertical Grou✓ Horizontal Co✓ EU PPE Woo	ommittee 21.04.2018
	 ☑ EN/prEN: EN 352-4:2001 N 352-7:2002	☑ Other: EN 352-1: 2002, EN 352-2:2002, EN 352-3:2002
Article: Annex: (Clause: 4.3.2 (in both standa	rds)
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-dependent earmuf ere the external level is 83 o	/earplug provides 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 elin	ninates extreme 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 minimum attenu	ation values for 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+A	•	
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. For products that are specifically
The criterion levels shall nevertheless be mentioned in the user inform noise levels.	ation with a warning that the	product is not suited for high continuous



PPE-R/04.039 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/prE	N:	Other:
Article: Annex:	Clause:		
Key words:			
Earplugs, special use, risk in water			
Question:			
Earplugs are not only used to protect hearing against the harmful effects swimming pools) against the potential harmful effects of water in this			vimmers (particularly in
The question is:			
Are earplugs used in swimming pools kind of PPE?			
Solution:			
The "Guide to application of PPE regulation (EU) 2016/425" (first edit categorisation of personal protective equipment (PPE)) that "earpluge PPE. A certification against the regulation (EU) 2016/425 is therefore	s intended for	or swimmers to prevent water e	
But it might be possible to certify the product in question against the devices because a protection of the middle ear against water while study.			



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 ✓ 29.11.2019
Question related to	
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 p be tested?	eak noise of level-dependent earplugs without electronic sound restoration
Solution:	
Measure the peak attenuation on a suitable ear simulator, using	ection of earplugs against the risk of exposure to high peak levels. an appropriate noise source. The conversion of the measurement data into hay be not straightforward. Only those converted data can be used to cified in the EU Directive 2003/10/EC.



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	
Article: Annex:	Clause: Annex B
Key words:	
Calculation of mean electrical input level, earmuffs with electrical aud	lio input
Question:	
Annex B of EN 352-6 asks for the calculation of the electrical input le weighted diffuse-field related sound pressure level of all sixteen ears	
The procedure to find the mean value is not specified. How should the	e mean electrical input level be determined?
Solution:	
Corresponding to the calculation of the criterion levels in EN 352-4 the	e following procedure should be applied:
Determine, by interpolation where necessary, the electrical input lev level under the earmuff is equal to 82 dB for each of the 16 ears and standard deviation.	el (X_i) for which the A-weighted diffuse-field related sound pressure then calculate the mean electric input level $(X_1+X_2++X_{16})/16$ and the



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 22.11.2019 	
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 unctested 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 not Use the heads specified in EN 13819-1, figure 11 and add the follow 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 colle Konstruktionsrichtlinien, Band 3; Stand: 1989, Zweite, überarbeitete Wehrtechnik und Beschaffung, Koblenz, Carl Hanser Verlag, Müncher	g test dimensions for the test height (horizontal distance top to e of females and head C represents dimensions relevant for the ed in "Handbuch der Ergonomie mit ergonomischen d erweiterte Auflage, herausgegeben von Bundesamt für	,



PPE-R/04.043 Version 01

Number of pages: 1	Approval sta	ge:	Approved on :
Origin: VG 4 Hearing protection (submitted by BGIA, Germany)		Group al Committee Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to PPE Regulation		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.	ded earplugs to be includ	led within the use	r instruction as EN 352-1
Solution:			
The manufacturer shall add a description on how to exchange plugs exchange sets for that banded earplugs.	of banded earplugs to the	wearer informati	on in case he provides



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: 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 21.04.2018 29.11.2019
Question related to PPE Regulation	☑ EN/prEN: EN 352-2:2002	☐ Other:
Article: Annex: II, 3.5, III m) C	Clause:	
Key words:		
Additional check of protective function, custom moulded earplugs, leak-	age	
Question:		
For production of custom moulded earplugs individual imprints of the use on this imprint the final PPE is produced by the manufacturer in his prewhich results in a significant underprotection as studies showed. How crequirement of the regulation (EU) 2016/425 be tested?	mises. About 5 % of custom moulded ea	rplugs show a leakage
Solution: The number of cases, where leakage was found, can only by decrease	d but navar will disappear. As a tansian	of a facial muscle during
preparation of the imprint (duration is several minutes) can not complet canal - e.g. by decreasing of ear canal diameter – the imprint will becor significant and unknown reduction of the protective function. The user of do using foam plugs. To guarantee the protective function as specified user's ear canal by the manufacturer. There are techniques available user incrophone. During EU type examination such a test has to be applied described by the manufacturer, see Annex III m) of the PPE regulation. body during the EU type examination.	tely be avoided and such a tension can one too small. The final product will show can not compensate the leakage by e.g. the only solution is to perform a final choising e.g. little overpressure or loudspeal by the manufacturer as well as the test	change the shape of the ear a leakage and in turn a deeper insertion as he can eack of the function at the kers and a probe equipment has to be



PPE-R/04.049 Version 01

RECOMMENDATION FOR USE

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		⊠ EN/prE	N: EN 352-6:2002	Other:
Article:	Annex: II, 3.5	Clause:		
Key words:				
Earmuffs with commun	ication facilities			
Question:				
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 linearly 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?				

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

RECOMMENDATION FOR USE			
Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group 4		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Grou	
Question related to PF	PE 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	ve noise control		
user information is not requ	specify the procedure to calculate the to uired to contain the total attenuation, only ttenuation be calculated and what attenu	the active values.	
1. Calculate the mean and measured according to ch 2. Interpolate the subjectiv bands between 63 Hz and 3. Add the mean values of octave band. 4. Average the three one-t negative values, i.e. the re the mean of the total atter 5. Sum the standard devia 6. Average the three stand the highest value has the	tion of passive and active attenuation qu lard deviation values for one octave band highest weight for the end result. This yie ach octave band by subtracting the stand	sive attenuation determined according to tion in one-third-octave bands between \$\frac{8}{2}\] rding to EN ISO 4869-1:2018) linearly in e subjective data to 50 Hz and 10 kHz. Explored to get the mean of the total attenuation of one octave band (between 63 Hz and 8 attenuation has the highest weight for the adratically for one-third-octave bands be at (between 63 Hz and 8 kHz) energetical elds the standard deviation of the total at	DEN ISO 4869-1:2018. 50 Hz and 10 kHz as one-third- octave for each one-third- 8 kHz) energetically (using e end result. This yields tween 50 Hz and 10 kHz. ly using positive values, i.e. tenuation in octave bands.
Content of the user information shall of the derived HML and SNR v	contain the mean, standard deviation and	APV between 63 Hz and 8 kHz for the t	otal attenuation together with



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/prE	EN: EN 13819-2:2002	☐ Other:
Article: Annex: Clause: 5.	4	
Key words:		
Drop test for earplugs		
Question:		
How many samples should be used for the drop test of earplugs according to Ef	N 13819-2, clause 5.4?	
Solution:		
All samples that are going to be used for the REAT testing with 16 test subjects	should be used for the drop test	t.



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	vel is not limi	ted to the necessary innocuous	s level."



PPE-R/04.054 Version 01

RECOMMENDATION FOR USE

Number	of pages: 1		Approval stage :	Approved on :		
Origin : \	/G4 Hearing F	Protection		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	24.11.2017 18.07.2018 05.11.2018	
Question	related to	☐ PPE Regulation	⊠ EN/prE	N: EN ISO 4869-1 + -2	Other:	
Article:		Annex:	Clause:			
Key word	ds:					
Sound at	ttenuation, de	cimal place, APV				
Question	1:					
1.	•	precision (how many decimal place 4869-1 to be declared in the tes	•		measured in accordance	
2.		orecision (how many decimal plac occordance with EN ISO 4869-2 t				
3.	3. With which precision (how many decimal places) are the HML and SNR values to be declared in the test report and user information?					
	-					

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	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	02.10.2017 18.07.2018 up 05.11.2018
Question related to			Other:
Article:	Annex: II, 3.5	Clause: 7.4	
Key words:			
Hearing protectors with	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.



PPE-R/04.056

Version 1

RECOMMENDATION FOR USE

Number of pages:	1	Approval stage : Approved on :		
Origin : Vertical G	roup 4		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	20.05.2021 01.10.2021 18.11.2022
Question related t	o ⊠ PPE Regulation ☐ PPE Guidelines	⊠ EN/prE	N: : EN 352-2:2002	Other:
Article:	Annex: II, 3.5	Clause: 6.2	2	
Key words:				
Earplugs for childr	ren, user information			
Question:				
	standard for earplugs EN 352-2:2002 is not explic ral earplugs is tested in the range between 5 and		a certain age of the earplug us	ers. The nominal size
What requirement	s should be applied to the user information for ea	arplugs that ar	e specially designed and mark	eted for children?
Solution:				
Additional instruc	tions and information for the parents should be in-	cluded:		
feedba	ing that use of the earplugs is not suitable for child ck on the quality of the fit (leakage, pain) to the ac ck (e.g. handicapped persons) should be exclude	dult inserting th	e earplug. Also other persons	
- A desci	ription how to fit the earplugs to the ears of the ch	ild 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.



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Version 1

RECOMMENDATION FOR USE								
Number of pages: 1			Approval stage :	Approved on :				
Origin : Vertical Group 4			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	03/03/2023 31/05/2023 31/01/2024				
Question related to	PPE Regulation	⊠ EN/prE	N: EN 352-2:2020	☑ Other: RfU 04.045				
Article:	Annex: II, 3.5	Clause: 4.2	2.2.5					
Key words:								
Custom moulded earplug	gs, individual fit test by the customer itself							
Question:								
	custom moulded earplugs offer fit test systelies where custom moulded earplugs are in							
What requirements have	What requirements have to be fulfilled by such systems?							
Solution:								
The systems shall fulfil the	ne requirements listed below, assessed by t	he notified b	ody.					
See RfU 04.045 for refer	ence on fit tests for custom moulded earplu	gs.						
See EN 17479:2021 for	guidance on the application of individual fit t	est systems.						



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Version 1

Number of pages: 1			App	proval stage :	Approved on :
Origin : Vertical Grou	ıp 4		\boxtimes	Vertical Group Horizontal Committee EU PPE Expert Group	07/07/2022 31/05/2023 31/01/2024
Question related to	☐ PPE Regulation ☐ PPE Guidelines	⊠ EN/prE	N: E	N 352-3-2020	Other:
Article:	Annex:	Clause:			
Key words: mounted earmuffs, e	earmuffs attached to head protection and/or face	e protection o	devic	es, package information, la	abelling, size range, warning
Question:					
	2-3 states in chapter 6 for user Information, tha 1) On packaging/box "Warning: Small size rang				
	nentary combinations differ in size ranges, which only, and supplementary sizes vary (including				r example, basic
Solution:					
	not clearly state what combinations the warning of the combinations, basic or supplementary. T				
_	range or large size range (as appropriate) ear	muffs, certair	or com	nbinations. Refer to user in	formation."
Or "Warning: Small size size. Refer to user in	e range or large size range (as appropriate) ear formation."	rmuffs, basic	com	bination. Supplementary co	ombinations may vary in



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Version 1

Number of pages: 1			App	oroval stage :	Approved on :
Origin : Vertical Gro	up 4		\boxtimes	Vertical Group Horizontal Committee EU PPE Expert Group	07/07/2022 31/05/2023 31/01/2024
Question related to	☐ PPE Regulation ☐ PPE Guidelines	⊠ EN/prE	N: E	EN 13819-2:2020	Other:
Article:	Annex:	Clause:			
Key words:					
Under-the-chin band	ded earplugs, replacement of test subjects				
Question:					
	rs to Table 7 of EN 13819-1:2020 for the sizing able, are too small to model the head sizes of a ϵ test subjects.				
What protocol shoul small for a test subj	ld be followed for testing according to EN 1381 ect?	9-2:2020, clau	ise 4	.2 (sound attenuation) if a	given banded earplug is too
Solution:					
earplugs. The exper	as for mounted earmuffs (see clause 4.2.3.7 of rimenter should ask each test subject if the spe ejected from the panel and a replacement for hi	cimen fits. If it	doe	s fit, the test can be perfor	
Remark: It is discus to under-the-chin ba	sed to revise EN 352-2:2020 and EN 13819-1: anded earplugs.	2020 and to a	dd a	table with the values of Rft	J 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			110,110100	Vertical	Horizontal	PPE Expert
PPE-R/					Group 5	Committee	Group
General	21-014	01	EN ISO	Innocuousness, azo	28-8-2019	30-9-2019	7-2-2020
Conorai	21011		13688:2013 (4.2)	colourants	20020.0	00 0 2010	. 2 2020
General	20-003	01	EN ISO	Comfort, practical	28-8-2019	30-9-2019	7-2-2020
			13688:2013	performance			
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	05.031	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	<u>05.230</u>	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	05.355	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	23-011	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	30-003	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
I l'ada	04.000	04		Hamasaaa	00.0.0040	20.0.0040	7.0.0000
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 ÍSO 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 (4.4.40)		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	<u>29-017</u>	01	EN 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

Number of	Sheet	Version	Reference	Keywords	Approved by	Approved by	Endorsed by
RfU PPE-R/	number				Vertical Group 5	Horizontal Committee	PPE Expert Group
			(4.5b)				
EN ISO 11612	<u>29-016</u>	01	EN ISO 11612:2015 (4.5b)	Design; pockets	28-8-2019	30-9-2019	7-2-2020
EN ISO	30-002	01	EN ISO	Design; pockets	28-8-2019	30-9-2019	7-2-2020
11612			11612:2015 (4.5b)				
EN ISO 11612	23-010	01	EN ISO 11612:2015 (4.5d)	Molten metal design; overlapping seams	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	29-015	01	EN ISO 11612:2015 (4.5e)	Design; closures	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	<u>18-009</u>	01	ÈN IŚO 11612:2015 (4.5)	Molten metal design; Zips	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	27-014	01	EN ISO 11612:2015 (4.5)	Molten metal design, closures, cover flap	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	25-011	01	EN ISO 11612:2015 (5.2.1; 5.2.3)	Pre-treatment of material	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	23-018	01	EN ISO 11612:2015 (5.2)	Flame spread; cleaning	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	05.334	01	EN 469: 2005 (5.2)	Pretreatment; flame spread	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	<u>26-</u> 006b	01	ÈN ÍSO 11612:2015 (6.2)	Heat resistance; accessories; hardware	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	27-004	01	EN ISO 11612:2015 (6.2.1)	Heat resistance; hardware	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	29-023	01	EN ISO 11612:2015 (6.2.1)	Heat Resistance; shrinkage	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	24-020	01	EN ISO 11612:2015 (6.3.2.2)	Multilayer garments	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	29-004	01	EN ISO 11612:2015 (6.3.2.2)	Hole formation; outer layer	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	30-006	01	EN ISO 11612:2015 (6.3.2.2)	Multilayer; Limited flame spread; Heat transmission	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	<u>26-</u> <u>006a</u>	01	EN ISO 11612:2015 (6.3.2)	Flame spread; seams; accessories; hardware	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	30-004	01	EN ISO 11612:2015 (6.3.2.3)	Flammability behaviour; hardware	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	25-006	01	EN ISO 11612:2015 (6.3.2.4)	Flammability behaviour; embroidery	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	27-009	01	EN ISO 11612:2015 (6.3.2.4)	Flammability behaviour; transfer logos	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	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 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 2013	00 3 2013	7 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
EN 469	05.334	01	EN 469: 2005	Pretreatment; flame spread	28-8-2019	30-9-2019	7-2-2020

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			(5.2)				
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	21-013	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	26-006	01	EN ISO 11611: 2007 (6.7)	Flame spread; seams; accessories; hardware	28-8-2019	30-9-2019	7-2-2020
Arc flash	22-016	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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CHEMICAL	<u>27-002</u>	01	EN 13034:	Partial body protection	28-8-2019	30-9-2019	7-2-2020
			2005/A1: 2009 (5.1)				
CHEMICAL	18-003	01	EN ISO 13982-1	instructions for use; test	28-8-2019	30-9-2019	7-2-2020
			(6e)	results			
CHEMICAL	21-023	01	EN 14126 (4.1.4)	infective agents	28-8-2019	30-9-2019	7-2-2020
CHEMICAL	<u>24-024</u>	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,	28-8-2019	30-9-2019	7-2-2020
CHENTICAL	05.040	04	0	pressure pot	00.0.0040	20.0.0040	7.0.0000
CHEMICAL CHEMICAL	05.318 05.158;	01 01	General General	Instructions for use Pockets	28-8-2019 28-8-2019	30-9-2019 30-9-2019	7-2-2020 7-2-2020
CHEMICAL	05.156, 05.350	01	General		20-0-2019	30-9-2019	7-2-2020
CHEMICAL	<u>05.313</u>	01	General	Repellency	28-8-2019	30-9-2019	7-2-2020
CHEMICAL	33-003	01	EN 14605:	Spray test; Jet test	28-8-2019	30-9-2019	7-2-2020
			2005/A1: 2009 / EN 13034:				
			2005/A1: 2009				
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	01	EN 388: 2016	Coated gloves, abrasion	28-8-2019	30-9-2019	7-2-2020
	RFU		(6.1)				
	05.32-						
EN 000	<u>003</u> r1	0.4	EN 000 0040	Al	00.0.0040	00.0.0040	7.0.000
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	Cut resistance	28-8-2019	30-9-2019	7-2-2020
EN 388	32-009	01	(6.2.3) EN 388: 2016	Cut resistance	28-8-2019	30-9-2019	7-2-2020
			(6.2.6)				
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	Blade cut resistance	28-8-2019	30-9-2019	7-2-2020
EN 388	05.264	01	(6.2, 6.3) EN 388: 2016	Tear strength	28-8-2019	30-9-2019	7-2-2020
	<u> </u>		(6.4)	l san singin			. = ====
EN 388	<u>22-010</u>	01	EN 388: 2016	Mechanical protection	28-8-2019	30-9-2019	7-2-2020
EN 388	<u>27-001</u>	01	EN 388: 2016	Leather; description; thickness	28-8-2019	30-9-2019	7-2-2020
EN 388	27-005	01	EN 388: 2016	Marking, Information	28-8-2019	30-9-2019	7-2-2020
LIV 300	27 000	01	(7,8)	iviarking, information	20 0 2013	30 3 2013	7 2 2020
EN 274	26.042	01	EN ISO 274 4:	Marking	20 0 2010	20.0.2010	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-	permeation, gloves with	28-8-2019	30-9-2019	7-2-2020
			1:2015	irregular design			
EN 374	<u>33-001</u>	01	EN ISO 374-	Degradation; Hydrofluoric	28-8-2019	30-9-2019	7-2-2020
			1:2016 / EN 374- 4: 2013	Acid			
EN 374	33-002	01	EN ISO 374-	Permeation levels; User	28-8-2019	30-9-2019	7-2-2020
	00 002		1:2016	information	25 5 20 15	00 0 2010	. 2 2020
EN 374	32-005	01	EN374-4: 2013	Sampling, puncture test,	28-8-2019	30-9-2019	7-2-2020
				irregular construction,			
EN 074	04.005	0.4	EN 100 074	chemical protective gloves	00.0.0040	00.0.0010	7.0.0000
EN 374	<u>34-005</u>	01	EN ISO 374-	Permeation against chemicals	28-8-2019	30-9-2019	7-2-2020
	<u> </u>		1:2016 (Table 2)	CHEMICAIS		1	<u> </u>

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Gloves general	27-011	01	General	Gloves; cold; categorization	28-8-2019	30-9-2019	7-2-2020
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	19-012	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
Gloves EN 420	20-006	01	EN 420: 2010 (4.3.4)	Gloves, natural rubber, protein content	28-8-2019	30-9-2019	7-2-2020
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	(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	<u>05.245</u> 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	27-013	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 40 4	40.004	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		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
		11612:2015	knitted fabrics			
05.05-184	02	EN 1082	Butcher gloves	16-06-2021	01-10-2021	18-11-2022
05.05-188	02	EN 530:2010	Abrasion, pressure	15-06-2021	01-10-2021	18-11-2022
05.05-223	02		Marking, partial protection	15-06-2021	01-10-2021	18-11-2022
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			
05.05-309	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				
<u>05.05-348</u>	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
		2013	bands			
<u>05.18-005</u>	02	EN 659:2008	Firefighter gloves; puncture	16-06-2021	01-10-2021	18-11-2022
<u>05.18-006</u>	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
05.23-005	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
05.24-006	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
<u>05.26-001</u>	02	EN 13034	Breathable spray-tight	16-06-2021	01-10-2021	18-11-2022
<u>05.26-013</u>	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
05.34-002	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 responsibility of the market surveillance.	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020
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. Is it necessary to test all kinds of clothing for	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
05.289	Dimension al change; seams	water vapour resistance? 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? In such a case, can each garment, separately bear the CE marking?	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

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	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
			model be examined? In this example it means examination of 15 jackets, provided by the manufacturer.		
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 certain date, such date should be not less than 5 years.	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020
			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

BU PPE Expert Group

Approved on:

30-09-2019

7-2-2020

Sheet	Standard	Key words	Question	Pro	posed solution	Comment
number PPE- R/05.	(clause)	, 				
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	M 13356, for a Type 2 ded to signal the user's lly 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 4.2.2 states:	Minimum 50 mm band around the torso, the trouser legs and the sleeves.	
			"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

SPA cut reference cut film backing. The tape consists of separate sections of retroit. Plant of the cut reflective material, each aid page of about 1-2mm between each segment is vertically off-set by about 3-6mm wide, with a gap of about 1-2mm between each segment is vertically off-set by about 30 degrees (see picture) 1) Assuming a section of tested tape meets the photometric requirements of the standard, is any definitive research that shows whether segmented tapes? 2 Am gaps in the tupe acceptable? 2 Am gaps in the tupe acceptable? 3 As the segmented tape is made to be bonded to fabric, this suggests that photometric measurements with targer gaps between segments, different segmented widths, and different off-sets. 3) Should gaps between tupe 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 shockground material can either betsted on a black background floors! (Amunifacturers may wish to make materials with targer gaps between segments, different segments which and different off-sets. 3) Should gaps between tupe segments be counted as background material? As the segment dape is made to be bonded to a should material? The tupe could be applied to the	23-001	EN 471: 2003 (6)	Segmente d	A retroreflective tape is available, 50mm in	1) this item is on the agenda of WG 7 for the revision of EN 471	Approval by Horizontal Committee: 30/09/2019
SO						
tape consists of separate. 2013 (6) sections of ferror- reflective material, each about 5-6mm wide, with a gap of about 1-2mm between each segment; each segment is vertically off-set by about 30 degrees (see picture) 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 on apse? 2) Are gaps in the tape acceptable? Manufacturers may wish to make materials with larger gaps between segmented widths, and different off-seets. 3) Should gaps between tape segmented 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 7.3] 7.3] 7.3] 7.3] 7.3] 7.3] 7.3] 7.3] 7.3] 7.3] 7.3] 7.3] 7.3] 7.3]						
sections of retror- reflective material, each about 5-6mm wide, with a gap of about 1-2mm between each segment; each segment is vertically off-set by about 30 degrees (see picture) 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) Are gaps in the tape acceptable? Manufacturers may wish to make materials with larger gaps between segmented off-seet. 3) Should gaps between tupe segmented off-seet. 3) Should gaps helween tupe segmented off-seet. 3) Should gaps helween tupe segmented tupe 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						
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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
	15550	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	requirement.	07/02/2020
		arca	specimen or does it refer		
			to the area of 15 cm ²		
			which type 2 & 3		
			accessories should		
			exceed (see clause 4.1).		
			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

EN ISO 11612

(EN 531) Rev.: 2019-08

			ciotiling and gloves		Approval by:	Approved on:
			RECOMMENDATION FOR	USE	Horizontal Committee EU PPE Expert	30-09-2019 7-2-2020
Sheet number PPE-R/05.	Standard (clause)	Key words	Question	Pro	posed solution	Comment
24-007	EN ISO 11612:2 015	Catego rizatio n	shou intented body manu. The sapproximation of the sapproximation	Id be in ac ded use and has the right acturer's information oppriate information	turer's decision which coordance with the nd the risk. The notified ght to disagree with the decision. on leaflet shall contain the formation. res the agreed position of	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	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;" class From ed.) or no man temperature environments the effects of which are comparable to those of an air temperature of at least 100 °C;"	ified as can PPE Regular and part detachal afactured a cerature end hare comperature of harmay or a presences, hot spl	eelworkers should be tegory III. rulation Guidelines (1st tion guide 6.3: /or accessories (whether ole), designed and for use in high-vironments the effects of parable to those of an air 100 °C or more and may not be characterised e of infra-red radiation, ashes or the projection of 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	protective clothing, is a hood incorporating a visor. optice establishment of the standards make no reference optice healt	ssary tests al protect lish confo h and safe	ody shall conduct the for these respiratory and ion components to brmity with the basic sty requirements (in the intended use).	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020

Status: February 2024

What shall be checked by the notified

body?

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?	 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). 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 states: "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	Standard	Key words	Question	Proposed solution	Comment
number PPE-R/05.	(clause)				
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 this documentation is acceptable	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			T		
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 Approval by Horizontal Committee: 28-005 EN 469: Tear strength specimen shall minimum tear strength 2005 (6.7) for non-coated outer be used. If there 07/02/2020 are problems material of at least 25 N with the when tested according to EN ISO 13937specimens, the larger 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

remains that if different laboratories use Status: February 2024

30/09/2019 Approval by PPE expert group:

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 amendment or revision of the	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
				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:

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
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.	Another material which meets the index 2 requirement of EN ISO 14116 and the dielectric requirements of EN 1149-5 should be used to ensure continuity (e.g. at wrists, 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?	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



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	P	roposed 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.	since Janua test method which can be make it post protective protective protective protective protective protective protective protection. Another state contains protection protective protective protection pro	and garment shall be	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

Approval by:

Approved on:

	RECO	OMMENDATION FOR	RUSE	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



EN ISO 9185

(EN 373)

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			nonning and grovos	Approval by:	Approved on:
		RECO	MMENDATION FOR USE	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
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. The attached photo, can it be considered as damage?	This is considered to be damage.	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7-2-2020



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: Pr clothing and glo

RECOMMENDATION

specimen holder

EN ISO 15025

(EN 532) Pay - 2010-08

al Group 5: Protective	Rev.: 2019-08			
othing and gloves	Approval by:	Approved on:		
J	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:

(including biological and radioactive risks)

CHEMICAL

** *	*		ctive clothing and	Rev.: 2019-08	
REC			gloves	Approval by: App	
		DECOI	MMENDATION FOR	Horizontal Committee	30-09-2019
		KECOI	USE USE	EU PPE Expert Group	7-2-2020
Sheet number PPE- R/05.	Standard (clause)	l Key words	Question	Proposed solution	Comment
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 level 1 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 penetratio n, 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.	Approval by Horizontal Committee: 30- 9-2019 Approval by PPE expert group: 7-2-2020
				the standardisation working group - after evaluation of the test method - only retained a pass/fail criteria instead of classes.	
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

	1		T	1	
33-003	EN 14605: 2005/A 1: 2009 / EN 13034: 2005/A 1: 2009	Spray test; Jet test	EN 14605 clause 4.3.4.2 (resistance against penetration of 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 garments (e.g. seams)?	Clauses 4.3.4.2 and 4.3.4.3 of EN 14605, and Clause 5.2 of 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 for 'e.g.' meaning 'for example'.)	Approval by Horizontal Committee: 30- 9-2019 Approval by PPE expert group: 7-2-2020



Coated

gloves,

abrasion

05.290

RFU

05.32-

003 r1

EN

388:

2016

(6.1)

CO-ORDINATION OF NOTIFIED BODIES PPE

Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

EN 388

Rev.: 2019-08

Approval by:
Horizontal Committee

<u>Approved on:</u> 30-09-2019

7-2-2020

EU PPE Expert Group

Put the performance classification on the safe

The end point is reached

when a hole appears in

the whole material.

Approval by

Horizontal

2-2020

Committee: 30-9-

2019 Approval by

PPE expert group: 7-

side.

Sheet number CNB/P/0 5	Standar d (clause)	Key words	Question	Proposed solution	Comment
17-011	Gener al	Gloves without fingertip	Is it possible to certify gloves according to EN 388 without fingertip for better dexterity?. In EN 388 the test-samples are cut from the palm of the gloves.	Yes, this is possible.	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7- 2-2020
05.125	Gener al	performanc e levels	If the whole palm (do we agree, that "whole palm" includes fingers?) of a glove type is made from one layer, but a variant is doubled only in the main part (without fingers), shall we assess the variant with the same EN 388 performance profile as for the single-layer-type?	Yes, because the reinforcement is only partial. The benefit of the partial reinforcement can be stated in the informative note, but an upgrading of the whole performance-level should be avoided, because it does not cover the fingers.	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7- 2-2020

Should the abrasion test for gloves with vinyl

or plastic coating be considered finished

when only a part is removed or when it is

totally removed?

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	considered for the marking. This is sometimes in contradiction with taking 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	Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7-
			a) Gloves with reinforcement patches almost completely covering the palm and thumb: c) Gloves with reinforcement patches covering some places on the palm and thumb:	b) Gloves with reinforcement patches almost completely covering the palm but not the 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):		
					in the consumer 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
EU PPE Expert Group	7-2-2020

Sheet number PPE-	Standard (clause)	Key words	Question	Proposed solution	Comment
R/05.	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), 1st 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)

General

Key words

Gloves;

cold;

Sheet

number

PPE-R/05. 27-011

CO-ORDINATION OF NOTIFIED BODIES PPE

Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR US

What is a category of gloves protecting against cold if a

Question

Gloves

General & Miscellaneous Rev.: 2019-08

Approved on:

Approval by:

		* *
SE	Horizontal Committee	30-09-2019
-	EU PPE Expert Group	7-2-2020
	Proposed solution	Comment
	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
case b - they in the togeth or - deter single meet t	perform the test as described Standard (all the layers	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7-2-2020

temperature of cool environment is categorizati equal or higher than -5°C? on 23-007 EN 420: pH value In a case of knitted gloves partly 2010 coated by plastics or rubber, which (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 2003 says: (4.3.2)"Determination of pH shall be according to EN ISO 4045 for leather gloves, and EN 1413 for other materials. Following amendments shall apply: - if gloves are made of more than one layer, all layers shall be tested together;" Issue: for some Customers it may be convenient from an economic point of view to only perform the test on each single layer. 19-012 Approval by EN 420: Does clause 4.3.3 Determination of This clause intended to address Chromium 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 extractable protein content applicable 2010 content 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.	Horizontal Committee: 30-
34-010	EN 1149- 5:2018 (4.2.1}	Surfac e resista nce; Surfac e resisti vity	 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) Subcl. 4.2.1 says: "Geometric mean of surface resistance of less than or equal to 2,5 x 10⁹ Ω on at least one surface, tested according to EN 1149-1." The value less than or equal to 2,5 x 10⁹ Ω on at least one surface is meant as the obverse side or the reverse side? 	 EN 1149-5 requires a maximum surface resistance o 2.5 x 10⁹ Ω. Calculation of Surface resistivity is required to EN 1149-1, but is not required for certification according to E1149-5. Result from obverse side or the reverse side is accepted. 	Committee: 30- 9-2019 Approval by PPE expert group: 7-2-2020

34-016	EN	Attach	Are non-conductive attachments to	EN 1149-5:2018, clause 4.2.2.2,	Approval by
	1149-	ments;	the outside of garments, greater in	states that "Exposed cords,	Horizontal
	5:2018	Condu	thickness than 2 mm, acceptable?	drawstrings, etc. shall not exceed	Committee: 30-
	(4.2.2.2, 4.2.2.3)	ctive parts	e.g. plastic buttons (> 2 mm thick), plastic buckles (> 2 mm thick) and plastic press studs (see pictures below)	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	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

GI 4	Short Standard Warmanda Orackar Brancadadakar				
Sheet number PPE-R/05.	Standard (clause)	Key words	Question	Proposed solution	Comment
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 Horizontal Committee: 30-9-2019 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. Is it possible to certify according to EN 342 a two piece suit with cap?	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 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 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 30-09EU PPE Expert Group 7-2-20

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 fire-fighter 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	> 50	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:
 Appr

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

<u>Approved on:</u> 30-09-2019

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

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

Sheet number PPE-R/05. (clau	dar Key words	Question	Proposed solution	Comment
33-007 EN 1668 : 20 (7.8)	17 viral	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

	RECOMMEND	ATION 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	lifferent following the colour of material, v	vhite or dark.		
Which colour shall be test	red if the garment is produced in several of	different colou	rs?	
Solution:				
Test minimum 1 sample o	of each colour and proceed further with th	e colour that g	gave the worst result.	



PPE-R/05.05-156 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 11612: 2015 (6.4)	☐ Other:
Article: Annex:	Clause:	
Key words:		
Dimensional change, knitted fabrics		
Question:		
The 5% maximum change quoted in these specifications is neither a	appropriate nor accurately measurable for l	nitted fabrics.
Solution:		
The 5% figure is maintained as a rule.		
The notified body may judge as an expert opinion that the knitted may a higher shrinkage is acceptable.	aterial is stretchable enough not to affect th	ne protective properties, and
The real shrinkage should be mentioned in the information for use.		



PPE-R/05.05-184 Version 02

RECOMMENDATION	T I OIL OOL	
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 ☐ E	EN/prEN: EN 1082	☐ Other:
Article: Annex: Clau	ise:	
Key words:		
Butcher gloves		
Question:		
The butcher gloves are generally repaired, when a chain-mail breaks dowr	n.	
What procedures to apply if these repaired butcher gloves are placed on the	he market as a new product with a ne	ew name?
Solution:		
A repaired product placed on the market has to be considered as a new pr	roduct.	
The VG is concerned about the (un)safety of repaired PPE.		



PPE-R/05.05-188 Version 02

ζ.	RECOMMENDA	ATION FO	RUSE	
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/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	ould be used: 9 kPa or 12 kPa?			
Solution:				
9 kPa				



PPE-R/05.05-223 Version 02

RECOMMENDATION	N FUR 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 ☐ E	EN/prEN: [☐ Other:
Article: Annex: Clau	se:	
Key words:		
Marking, partial protection		
Question:		
How can the marking be made when only a part of garment complies with	a standard?	
Example: The whole garment passes EN ISO 15025 A1level 3 and the red be categorized in class D3 for aluminium splashes. Can D3 be put on the red		e front of the garment can
Solution:		
It is possible to mark with the number of the standard, if in the marking and is protected.	d information of use it is clearly explaine	ed which part of the body



PPE-R/05.05-226 Version 02

	RECOMMEN	IDATION FO	K USE	
Number of pages: 1			Approval stage:	Approved on:
Origin: Vertical Grou	ρ5		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	16.06.2021 01.10.2021 18.11.2022
Question related to		⊠ EN/prE	EN: EN 14605	☐ Other:
Article:	Annex:	Clause:		
Key words:				
Attached items				
Question:				
	ears to be no requirement to test gloves, boo he main body of the suit.	ots, etc attached	d to chemical suits for resistanc	e to permeation against the
Solution:				
We propose to test the has been tested aga	he materials of gloves to either EN 374-3 or inst.	EN 369 using the	ne same battery of chemicals th	at the main part of the suit
For the boots there is	s no standard. The N.B. shall conduct all nec	cessary tests to	establish the conformity for the	same battery of chemicals.
The user information	should include test data for the individual co	omponents of th	ne clothing assembly.	



PPE-R/05.05-25
Version 02

	KLCOIVIIVIL	LNDATION FOR USE			
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/prEN: EN ISO 20471:2013 (4.2)	☐ Other:		
Article:	Annex:	Clause:			
Key words:					
Design; retroreflective	ve; arrangement				
Question:					
		scribed in EN ISO 20471, in order to make them ere is a risk the bands are hidden by fixed or mov			
Can these items still be considered as complying with EN IS 20471 (cfr. marking), if accompanied by a reference to the deviation and the reasons for it?					
Solution:					
In case of deviation from a harmonized standard to suit a particular end-use, it should be proven from the risk analysis of that particular application that the proposed modification is justified, i.e. the PPE still meets the basic health and safety requirements of the Regulation.					
No. Compliance with an EN standard means to comply with the whole standard.					



PPE-R/05.05-282 Version 02

*						
Number of pages: 1		Approval stage:	Approved on:			
Origin: Vertical Group 5	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; hig	gh visibility					
Question:						
Should the retroreflective material be tested to EN 348 (Molten metal) as well as to EN ISO 15025 (burning behaviour) for high visibility garments used for welding operations?						
Solution:						
Yes, they shall fulfil the	requirements for welder's protective clothin	ng.				



PPE-R/05.05-309 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		☐ EN/prEN	N:	Other:	
Article:	Annex:	Clause:			
Key words: Test report, reference	e to regulation				
Question:					
Is it allowed to mention in a test report that the tested fabric (not a garment) conforms to the safety requirements of PPE Regulation 2016/425?					
Solution:					
No, the Regulation ac	ddresses PPE, i.e. finished products, not mater	ials.			



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 blace	ckened before	e 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: Acet	JIE			



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	up 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 ISO 20471:2013	Other:
		(4.2.2)		
Article:	Annex:	Clause:		
Key words:				
Bands encircling the	e torso			
Question:				
EN ISO 20471:2013	3, clause 4.2.2 states that garments covering the	ne 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,	without head	or limbs.	
•	to verify this requirement if the bands are put d almost at shoulder height and hence can not	• •	• /	e torso fully. But what if the
Solution:				
	ut law analysis to analysis the targe			

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	✓ 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	EN:	Other:
Article: Annex: Clause:		
Key words:		
Instructions for use		
Question:		
EN ISO 13688:2013 requires that, in the instructions for use, the article number	appears in the same way as it is	s marked on the label.
The clause on labelling in the same EN ISO 13688 requires to indicate the article	e designation: product type, con	nmercial name or code.
Is it acceptable to have a general sentence in the instructions for use, e.g. "Thes according to IEN ISO 20471:2013"? Or should each individual item be mentione		
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" r notice applies to a group of items;	notice, e.g. by using article numl	pers, even if the same
 the notice gives an adequate explanation of all different classes and performallows to identify the data, which apply to that particular item. 	mance levels in the standard (when the standard when the standard is the standard in the standard in the standard is the standard in the standard is the standard in the standard in the standard is the standard in the stand	nere this 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 🖂 F	PPE Regulation PPE Guidelines	☐ EN/prE	EN:	☐ Other:				
Article:	Annex:	Clause:						
Key words:								
Protective clothing, categories	orisation							
Question:								
Nowadays in the market t	here is non-fluorescent protective clothing	with reflective	ve bands (gardening, maintenan	ce, 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 (accessories) should not be used, since clothing is explicitly excluded from the scope								



PPE-R/05.17-017 Version 02

7	* * *		
	RECOMMENDATION FO		
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	·EN:	☐ Other:
Artio	cle: Annex: Clause:		
Key	words:		
Vari	ious 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	evel shall be announced in the m	arking.
	s shall also be done in the information leaflet, but the attention may be draw ment, in particular if they are exposed to higher degrees of risk.	n to the higher protection levels o	ffered 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		ake on behalf of the user is
Exa	mples:		
1.	IEC 61331-3 on X-ray protective aprons specifies that the protection level 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 so with an aluminized front and an open back for comfort, the protection leve the garment should then be accompanied by the "i" pictogram to draw mo	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/pri (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 however information leaflet.						



PPE-R/05.18-005 Version 02

Number of pages: 1			Approval stage: Approved on:			
Origin: Vertical Grou	p 5		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group			
Question related to		⊠ EN/prE	N: EN 659:2008 (3.6)	☐ Other:		
Article:	Annex:	Clause:				
Key words:						
Firefighter gloves; po	uncture					
Question:						
In EN 659:2008, the	puncture requirement is level 3 instead of level 3	2 in the old v	version EN 659:1995.			
Most French fire-figh	nters gloves have level 2 and give entire satisfac	tion because	e dexterity is more importan	t for fire-fighters than puncture.		
Is it possible to certif	y 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 sh	nall indicate and explain this adequately in the "ir	nstructions fo	or use".			



PPE-R/05.18-006

Version 03

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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 BN/pr	EN:	☐ Other:		
Article: Annex: Clause:				
Key words: Type 2; Trousers				
Question:				
This standard is only intended to evaluate the knee protectors as separate item protectors should fit.	s, but what about the ready- ma	de garment in which these		
When a garment is put on the market with knee pockets, but without knee protectorect protectors?	ectors, can it be the user's respon	nsibility to choose the		
What are the items to be checked on the garment without the protectors?				
Solution:				
If the trousers are not PPE (as in the case of workwear without specific protection shall be considered.	ve 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 itself, 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 photomeris 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 exposure are lower than for a new product (from 330/250 to 100 cd/lux/m²), which	etric requirements of Table 1 and	2 have to bemet. This
Although the requirements after exposure should notbe decreased too much, we	see no real need to measure at	more than one angle.
Solution:		
For Type 1, after exposure, measurements shall be repeated at two angles, 0.2-angles.	degree observation angle and +	5 and -5 degree entrance
For Type 2 & 3, after exposure, a measurement shall be repeated at one angle, angle.	0.2-degree observation angle an	d +5 degree entrance



PPE-R/05.22-008 Version 02

RECOMMENDATION	FUR 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 (5.3)	/prEN: EN ISO 20471:2013			
Article: Annex: Clause	: :			
Key words:				
Colour fastness; non-fluorescent				
Question:				
For which kind of non-fluorescent materials are the colour fastness / staining requirements in clause 5.3 applicable?				
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 the colour fastness shall be assessed.	e influence of these small area materials. For other materials			
Clarification in the next revision of EN ISO 20471 is requested.				



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) ☐ Other:
Article: Annex: C	lause:
Key words:	
Repellency, penetration	
Question:	
Chemical protective clothing materials for type 6 garment shall be teste penetration by liquids.	d and classified for their liquid repellency and resistance to
EN 14325 states that the materials shall be tested against all 4 chemical The user information should contain information on the performance levels.	
Many materials for type 6 garments are designed to meet the repellency hydroxide, not for solvents.	y and penetration requirements for sulphuric acid and sodium
This means that manufacturers are requested to have their materials te the tests will bring no additional information.	sted against substances, for which they know they will fail. Hence
Solution:	
The garment shall not be tested against substances, from which it does	not protect.
However, it shall be clearly indicated in the information for use that no p	rotection 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/pr (4.2)	EN: 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 para possible contrary skew?	allel in one direction (see pictures in EN ISO 20471) or is
Solution: EN ISO 20471 allows this.	



PPE-R/05.24-006
Version 02

RECOMMENDATION FOR USE					
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 🛛 F	PPE Regulation	⊠ EN/prEl (4.2)	N: El	N ISO 20471:2013	☐ Other:
Article:	Annex:	Clause:			
Key words:					
Retroreflective; encircling	g bands				
Question:					
EN ISO 20471 requires real band, such as shown in	etroreflective bands with a minimum width on the example, meet the requirements?	f 50 mm to b	e ap	pplied in continuous bands	Does a deliberate offset in
Solution:					
CEN/TC 162/WG 7 response	onse:				
The band shall be continued to the band shall be continued to	uous without any offset.				



PPE-R/05.24-012b

Version 03

RECOMMENDA		
Number of pages: 1	Approval stage :	Approved on :
Origin: Vertical Group 5	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	
Question related to PPE Regulation PPE Guidelines	☑ EN/prEN: EN 1149-5:	☐ Other:
Article: Annex:	Clause: 4.2.2	
Key words: Design; vests		
Question:		
Can the apron or vest be certified as electrostatic dissipative protect	ive clothing acc. to EN 1149-5 including	g use in explosive atmosphere?
Solution:		
Aprons or vests can be certified as electrostatic dissipative clothing worn beneath them.	according to the PPE Regulation only ir	conjunction with the garments
They shall be subjected to a garment test as foreseen in EN 1149-4 to the item or items that the garment has been tested with.	(under development) as an ensemble.	The Certificate must be limited



PPE-R/05.24-026 Version 02

RECOMMENDATION FOR USE			
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/prEN: EN ISO 20471:2013 (4.1)	Other:
Article:	Annex:	Clause:	
Key words:			
Measurement of bac	kground material; combined performance mater	rials	
Question:			
It is possible to add t	he area of background material and combined i	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 m ² must be used.			



PPE-R/05.26-001 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	16.06.2021 01.10.2021 18.11.2022	
Question related to			☐ Other:	
Article:	Annex:	Clause:		
Key words:				
Breathable spray-tig	ıht			
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	/prEN: General Other:		
Article: Annex: Clause	:		
Key words:			
Antineoplastic agents			
Question:			
Is it possible to use the phrase "against chemicals risks and antineoplastic ag 374-1: 2016, when the glove is tested with permeation test, EN 374-3, using			
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) / F Daunorubicin.	luorouracil / Methotrexate / Vincristine / cis Platinum /		
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 demonstrated.			
The list of agents tested shall be included on the Certificate and the User Info	ormation.		



PPE-R/05.28-007
Version 02

Approval stage:	Approved on:
✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022
	☐ Other:
:2015 and EN 61482-2.	
same performance).	
ding to EN 61482-1-2/ EN 61482	2-1-1, and have only been
y?	
per RfU 25-010 "Design & melti	ing parts") and flame spread
neets Index 3 of EN ISO 14116 o	can be used on an arc-flash
	✓ Vertical Group✓ Horizontal Committee



PPE-R/05.28-010 Version 02

Number of pages: 1			Approval stage:	Approved on:	
Origin: Vertical Grou	5 q _L		✓ 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 (5.6.2)	N: EN ISO 20471:2013	Other:	
Article:	Annex:	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 which do not claim compliance with EN 343 be:					
a) Tested to EN 343 in respect of water vapour resistance only;					
b) Tested for full o	b) Tested for full compliance to EN 343;				
c) Tested to EN ISO 20471 clause 5.6.3.					
Solution:					
c) Tested to EN IS	O 20471 clause 5.6.3.				



PPE-R/05.29-007
Version 02

RECOMMENDATION F	OD 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 $\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	rEN: EN ISO 20471:2013	☐ Other:
Article: Annex: Clause:		
Key words:		
Physiological performance; Contrast material		
Question:		
According to clause 5.6 all materials, incl. contrast material, shall fulfil the water area is covered by such contrast material, e.g. for side inserts or the lowest separt of torso? Do they also have to fulfil the Ret < 5, even if the size would have to fulfil the Ret < 5.	am part (see picture) and therefor	re doesn't cover the major
Solution:		
The area of those small inserts shall not be relevant (hem, edges, side, armpit and the size of those inserts altogether do not exceed 10% of background materials.)		e vapour relevant places



PPE-R/05.29-01
Version 02

	* * *		RECOM	MENDATION FO	OR USE	
Nι	ımber of pages: 1			Approved on:		
Or	igin: Vertical Grou	ıp 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	nes	EN: EN ISO 11612: 2015	Other:
Ar	ticle:		Annex:	Clause:		
Ke	ey words:					
De	efinitions; material;	; flam	ne spread			
Qι	uestion:					
6.3	3.2.2, with the flam	ne to	e layer garments are tested to 6.3. the outermost surface and the inr		the outer surface only. Multi-lay	er garments are tested to
			12:2015 has new definitions:			
	14 material asser	-			siahad warmant asaatu sation	
	mbination of all mails. 15 material comb		als of a multi-layer garment prese	nted exactly as the fir	nisned garment construction	
			a series of separate layers, fixed to	ogether during the ga	rment manufacturing stage	
	16 multilayer mat		, ,	and gainer daming and gain	mont manadataning otago	
material consisting of different layers intimately combined prior to the garment manufacturing stage, e.g. by weaving, quilting, coating or gluing						
1.	Is lamination glu	ing ?	1			
2.	l. Is a "material combination" considered to be a single layer or a multilayer material?					
3.	. Is a "multilayer material" considered to be a single layer or a material assembly?					
4.	. If one of these is considered to be single layer and the other not, what is the reasoning? What is the difference for the safety of the wearer of the garment (this can be the only criterion for the decision)?					
Α'	single layer" is a s	single	e material that has not been intima	ately combined with a	another layer.	
Sc	olution:					
1.	Replace 'gluing'	with	'laminating'			
2.	2. A "material combination" is considered to be a material assembly.					
3.	. A "multilayer material" is considered to be a material assembly.					
4.	. Defining the difference between a single layer or multilayer is important to know for testing purposes as the innermost layer of a multilayer is as important as the inner side of a single layer = both are nearest to the skin.					



PPE-R/05.31-00°
Version 02

	RECOMMENDATION FOR USE					
Nur	nber of pages: 1			Approval stage:	Approved on:	
Oriç	gin: Vertical Group 5			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	16.06.2021 01.10.2021 18.11.2022	
Que	estion related to 🛛 F	PPE Regulation	nes	:N: EN 13034:2005/A1:	Other:	
Arti	cle:	Annex:	Clause:			
Key	words:					
Wa	shing, reimpregnation	, care label				
Que	estion:					
1)	EN 13034 Clause 6 requires care labelling to be present for reusable garments, but does not require the maximum number cleaning cycles to be stated; however, this is required on the information supplied by the manufacturer (clause 7j)					
	Should the manufacturer have to place on the garment care label the maximum number of cleaning cycles permitted, or the maximum number of cleaning cycles permitted prior to reimpregnation.					
2)	EN13034 Clause 4.1 states that Manufacturer's instructions with regard to number of cleaning cycles, cleaning procedures and possible reapplication of treatments shall be observed.					
	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.	No. However, this in	formation must be included in the	instructions for use.			
6.	the maximum number	have treatments reapplied should er of cleaning cycles, prior to reap ccles, as required by EN 14325:20	plication of treatments			



PPE-R/05.32-01
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/s 2013 (7	prEN: EN ISO 13688:
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 mar	king only EN ISO 13688 or EN 420?
2) Is it required to put "EN ISO 13688" or "EN 420" in the labelling in addition	n to the specific product standard number?
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	standard in the marking.



PPE-R/05.33-004 Version 02

×	RECOMMENDA	ATION 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 11611: 2015	Other:
Article:	Annex:	Clause:	
Key words:			
Aprons; plastic buckles			
Question:			
	d as closure and regulation system in apronses are on the back of the user.	to be certified in accordance with EN ISO	11611:2015 and/or EN ISO
Shall this type of closure	e/regulation system:		
1) be covered by a pr	otective 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 test of I	imited flame spread? (as required by § 6.7.2	2.3 of EN ISO 11611:2015 and 6.3.2.3 of El	N ISO 11612:2015)
3) undergo the test of I	heat resistance at 180 °C? (as required by §	6.2.1 of EN ISO 11612:2015)	
Solution:			
	ure/regulation system does not need to be contained to be contained EN ISO 11612.	overed by a protective flap. This is not a clo	sure in the meaning of the
2. Yes, it must be teste	ed for limited flame spread, for both standard	ls.	
3. Yes, it must undergo for EN ISO 11611).	o the heat resistance test at 180 °C for EN IS	SO 11612, but not for EN ISO 11611 (as he	eat resistance is not required



PPE-R/05.34-002

Version 00

RECOMMENDATION TO COL					
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/prEN: EN 14325 : 2018	☐ Other:			
Article: Annex:	Clause: 4.4.2.2: Annex E				
Key words: Pressure pot; abrasion					
Question:					
EN 14325:2018 introduces a new pressure pot for assessing abrasi	ion resistance of chemical protective clothing	g material.			
Annex E.1 contains the dimensions for the round test pot apparatus pressure pot and associated device and tubing, however this volum					
When testing abrasion resistance according to EN 14325:2018, who	at dimensions should be used for the round	pressure pot?			
Solution:					
The expected volume in Annex E.2.2 is incorrect. The dimensions in	n Annex E.1 should be used to construct the	e round test pot.			
The total volume contained in the pressure pot cell (about 475 cm3) cm3.), pressure measuring device and piping, etc	c. shall be 570 (+0 /- 50)			



PPE-R/05.34-006 Version 02

^ * ^	RECOMMENDATION 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	<u>.</u>		
• 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	Pa/W		
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.	
In this case, a standard whermophysiological comfo		as a more stringent requirement for lmt than	a standard that addresses
Can the Imt requirement of	f EN ISO 20471 be overruled by the requi	irements of comfort standard requirements?	
1			
Solution:			
No. These items can be co	ertified to the Regulation.		
1			



PPE-R/05.34-007
Version 02

***	RECOMMEND	ATION FO	R USE	
Number of pages: 2			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 🖂 I	PPE Regulation	⊠ EN/prE A1:2009	:N: EN 13034:2005/	Other:
Article:	Annex:	Clause:		
Key words: Pre-treatment, liquid repe	ellency and penetration			
Question: Can we align the part pre PPE-R/05.21-022 (compa	e-treatment from EN 13034 prior to testing are with EN 469)?	of liquid repe	llency and penetration with the	existing agreement RfU
EN 14325:2018 says:				
"4.2 Pre-treatment				
4.2.1 Pre-treatment by cl	eaning and disinfection			
undergo pretreatment by	mical protective clothing material samples, cleaning and disinfection as applicable. If se garments, then testing shall be carried	the manufact	turer's instructions indicate that	
on the basis of standardi. after 5 cycles of pretreatr indicated by the manufac washed or alternatively d	ing to manufacturer's instruction, the clear zed procedures. If the number of cleaning ment, each consisting of one wash cycle, o sturer's instructions. This shall be reflected try-cleaned it shall only be washed, dried a fed in accordance with the manufacturer's	and disinfect one dry cycle in the inform and disinfecte	ion cycles is not specified, the t and one disinfection cycle carri ation supplied by the manufacto d. If only dry-cleaning is allowe	ests shall be carried out ed out in the sequence as urer. If the garment can be

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- 7:2007+A1:2011				
08.005	01	ISO 12402-	Sprayhood clear material	21.04.2018	21.04.2018	29.11.2019
00.000		8:2006 and ISO	oprayriood cicar material	21.04.2010	21.04.2010	20.11.2010
		12402-				
		8:2006+A1:2011				
08.006	01	ISO 12402-	VG8 Proposal for 50N	21.04.2018	21.04.2018	29.11.2019
		6:2006 and ISO	Flotation Suits (EN ISO			
		12402-	12402-6)			
00.007	0.4	6:2006+A1:2010	Hard and	04.04.0040	04.04.0040	00.44.0040
<u>08.007</u>	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
001000		5:2006+A1:2010	testing procedures for 2	2110112010	21.01.2010	2011112010
		and ISO 12402-	piece 50N flotation suits			
		6:2006+A1:2010				
<u>08.010</u>	01	EN ISO 12402-	Inherently buoyant material	21.04.2018	21.04.2018	29.11.2019
00.044	0.4	7:2007+A1:2011	- Thickness of foam	04.04.0040	04.04.0040	00.44.0040
<u>08.011</u>	01	EN ISO 12402-	In water performance -	21.04.2018	21.04.2018	29.11.2019
		4:2006 and ISO 12402-	faceplane			
		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
00.040	01	9:2006+A1:2011	Constant weer devices	21.04.2040	24.04.2040	20 11 2010
<u>08.018</u>	01	ISO 12402- 6:2006+A1:2010	Constant wear devices	21.04.2018	21.04.2018	29.11.2019
08.019	01	ISO 12402-	Oral inflation systems	21.04.2018	21.04.2018	29.11.2019
00.010		7:2007+A1:2011	oral illiation systems	21.57.2010	21.07.2010	20.71.2010
08.022	01	EN ISO 12402-	IRM Oil, Foam testing	21.04.2018	21.04.2018	29.11.2019
		7+A1:2011	, , , , , , , , , , , , , , , , , , , ,			
08.023	01	EN 13138-1,-2,-	Colour requirements	21.04.2018	21.04.2018	29.11.2019
		3:2008				
08.026	01	ISO 12402-	Inflation tests	21.04.2018	21.04.2018	29.11.2019
00.00=		9:2006+A1:2011		0161511		00415
<u>08.027</u>	01	ISO 15027-	Resistance to illumination	21.04.2018	21.04.2018	29.11.2019
		1:2012				

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
08.053	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



PPE-R/08.002 Version 1

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 8		21.04.2018
	☐ Horizontal Committee☐ EU PPE Working Group	21.04.2018 29.11.2019
Question related to PPE Regulation	☑ EN/prEN: ISO 12402-5:2006 and ISO 12402-5:2006+A1:2010	Other:
Article: Annex:	Clause:	
Key words:		
Snorkel Vest		
Question:		
There has been confusion about the testing requirements of 'Snorke	el Vests'.	
Solution:		
VG8 agree that a Snorkel Vest is a Buoyant Device for use where h buoyancy aid in accordance with ISO 12402-5 for level 50 devices.	elp is close at 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 Threa	d			
Question: Is it necessary to test e	ach colour in a range of the same fabric and s	sewing threa	ad?	
colour and then test a s	If a fabric/thread manufacturer has a range of sample of the colours in between these two, the buld representative of the range being produced	ne number c		
This agreement however	er 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:					
In ISO 12402-8:2006+A1:2011, Clause 5.5 for Sprayhoods. There is a requirement to have the clear material of a sprayhood to be compliant with ISO 12402-7. However, there is no requirement specifically for clear material in ISO 12402-7:2007+A1:2011. There is a requirement in Table 21 for Window material but this is specifically for viewing an inflation mechanism. These requirements are also excessive to what the requirement for clear material on a sprayhood would be (e.g. minimum thickness is excessive for a sprayhood window and could cause packing difficulties).					
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	
A sprayhood should comply with all requirements of ISO 12402-8 and not affect the device meeting all requirements when tested for in water performance according to ISO 12402-9, clause 5.6.					
When tested as part of the PFD in accordance with ISO 12402-9:2006+A1:2011, clause 5.5.3 and 5.5.4 the sprayhood materials, including any clear window material, should show no sign of damage such as shrinking, cracking, swelling, dissolution or change of mechanical qualities.					



PPE-R/08.006
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 Encumbrance assessment test in clause 5.5.1 should be carried out.				
5.5.1 Encumbrance Ass				
During the in water performance testing EN ISO 12402-5:2006+A1:2010 (Clause 5.6.3) the test subjects shall emerge from the water by climbing a distance of 2500mm up and down a vertical ladder, the suit shall drain sufficiently to avoid causing encumbrance to the test subjects.				
Additionally 50N Suits should be marked in accordance with the following 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				
	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/08.007
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 12402-7: SO 12402-7:2007	Other:
Article:	Annex:	Clause: 4.7	7	
Key words:				
Hardware				
Question:				
The requirements and methods when testing hardware according to clause 4.7 are based on specific testing of combination of webbing and closure and not a closure test only (as intended).				
Solution:				
		ممايات مطاعة	anneral averages	
The intention of the test must be to verify the actual strength of the buckles after several exposures.				
The following solution is recommended:				
No buckle may fail due to webbing breakage or slippage. If failure occurs due to the webbing it is recommended that another type of webbing is used for the test.				
The slippage properties for the specific webbing and closure combination are verified in clause 5.5.1, Mechanical Properties Test and partly in clause 5.6, Human Subject Performance Test.				



PPE-R/08.009	
Version 1	

	×	RECOMMEND	DATION FOR USE	
Number	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	⊠ EN/prEN: EN ISO 12402- 5:2006+A1:2010 and ISO 12402- 6:2006+A1:2010	Other:
Article:		Annex:	Clause: 5.3.4	
Key word	ds:			
Buoyand	y requirements	and testing procedures for 2 piece 50N flo	otation suits	
Question	1:			
The follo	wing points wer	e discussed at the last VG8 meeting on 16	6th June 2010 with regards to testing of 2 pie	ce flotation suits:
1.	requirements		tation suit, should the jacket and trousers mee of either piece being worn as a single item, or worn as a two piece set?	
2.			th the in water performance requirements in c isers are tested alone, and the combination of	
Solution:	1			
1.	Each piece of	a 2 piece set must meet the minimum buo	byancy requirements according to ISO 12402-	5:2006+A1:2010.
		ctory for the product only to be marked as ers in warm/ cold temperatures.	s there is always the possibility that the end us	ser will remove either the
2.		a 2 piece set must meet the in water requindividual garments and as a combination o	irements of ISO 12402-5:2006+A1:2010. The of a 2 piece set.	requirements must be met



PPE-R/08.010 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: EN ISO 12402- :2011	☐ Other:	
Article:	Annex:	Clause: 4.8	3, Table 12		
Key words: Inherently buoyant ma	terial – Thickness of foam				
This can be a potentia	t clearly spell out which thickness shall be test			ness of 30 mm has been	
tested according to EN ISO 12402-7. It is FORCE Technology's experience that the thinner layers of foam are more likely to fail the tests mentioned in EN ISO 12402-7 than thicker layers.					
May a manufacturer us specified in EN ISO 12	se a foam thickness which thickness have not 2402-7, clause 4.1.2?	been tested	according to EN ISO 12402-7	or covered be a range as	
Solution:					
Solution: No - Any type of inherently buoyant material of the same thickness as used in the device shall prove to have properties in accordance with EN ISO 12402-7:2007+A1:2011, clause 4.8 or be covered by a range according to EN ISO 12402-7:2007+A1:2011, clause 4.1.2 if the range has been successfully tested in accordance with EN ISO 12402-7:2007+A1:2011, clause 4.8.					



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 ☐ Other: nd ISO 12402-4:2006+A1:2010				
Article: Annex: C	lause: 5.6.3.1				
Key words: In water performance - faceplane					
Question: The standard ISO 12402-4:2006+A1:2010 has minimum in water requirements for Freeboard (min 80mm), Body angle (min 30° degrees) and face plane (min 20°).					
The EN 395:1995 standard did not have a requirement for face plane.					
Solution: The requirement for face plane on a 100N device is replaced with the requirement below in order to bring it in line with the existing requirements of a 100N device under EN 395:1995.					
Requirement for 100N devices: The face plane must be positive.					



PPE-R/08.013	
Version 1	

RECOMMENDATION FOR USE

Origin : Vertical Group 8		Approval stage :	Approved on :	
		✓ 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:
Artio	cle: Annex:	Clause: 4.2	2 and Table 1, 4.4 and Table 5	
Key	words:			
Wel	bbing and Thread requirements			
Que	estion:			
1.	When testing thread and structural webbings in accordance with 60% retention requirement after the exposure to accelerated we			-7:2007+A1:2011 is the
2.				
Solu	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 proposed that the requirements should be changed	ged in Table	1 for sewing thread and Table	5 for webbings to state a
	minimum requirement following the accelerated weathering expo	osure instea	d of retaining 60% strength as f	ollows:
	For sewing thread in Table 1 – Single strand breaking:			
	Minimum requirement following standard conditioning = 25			
	Minimum requirement following accelerated weathering = 15	5N		
	For structural webbing in Table 5:			
	Minimum requirement following standard conditioning = 160			
	Minimum requirement following accelerated weathering = 90	60N		
2.	No. It was agreed that it would be acceptable to use the sample length of the sample is to be long enough to allow sufficient mat minimum of 300 mm 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- :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 laborate used. It has been suggested that there shough this acceptable?			
Solution: Yes. A ±5% tolerance	should be used for the tests prescribed in ISC	12402-7 CI	auses 4.1.6.4 and 4.3.3.	



PPE-R/(08.01	5
Version	1	

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 8		∨ Vertical Group	21.04.2018	
				21.04.2018
			⊠ EU PPE Working Group	29.11.2019
Question related to P	PE Regulation	⊠ EN/prE 7:2007+A1	N: ISO 12402- :2011	☐ Other:
Article:	Annex:	Clause: 4.9	9 & Table 13	
Key words:				
Inflation Chamber Material				
Question:				
	material has previously been tested and ctile has occurred, is it necessary to repe			
Solution:				
No. It is only necessary to repcolour:	peat the following tests on the additiona	l colour as t	hese are the tests that may be a	affected by the change of
4.9.2.1 Tensile strength test				
4.9.2.2 Trapezoid tear streng	th test			
· · · · · · · · · · · · · · · · · · ·				
1				



PPE-R/08.016
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/prE 9:2006+A1	N: ISO 12402- :2011	☐ Other:
Article:	Annex:	Clause: 5.5	5.9, 5.5.9.3	
Key words: Buoyancy test method				
Question:				
The standard currently s	states:			
5.5.9 Buoyancy test				
	atable buoyancy, it shall be inflated through th 1 kPa, if orally inflated). The PFD shall then			
	ld be performed with the inflatable PFD inflat mance. What is the correct method to be use			
Solution:				
The following method sh	nould be used when testing inflatable PFD's:			
Proposed Method:				
	ng pressure of the Inflatable PFD the correct of be left for 5 min. The internal pressure of the			
This should be repeated	I a total of 3 times.			
The working pressure of	f the Inflatable PFD is determined by taking a	ın average o	of the 3 pressure measurements	S.
The 24h buoyancy test i	s then performed with the PFD chamber infla	ated by air to	the determined working pressu	ure.
1				



PPE-R/08.018 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 6:2006+A1	N: ISO 12402- :2010	Other:
Article:	Annex:	Clause:		
Key words: Constant wear devices				
Harness due to the increase	eiving several enquiries for testing of inte e in Wind Farm Activity. Such devices are equirements of such devices?			
Solution: Testing of such devices will	be under ISO 12402-6+A1:2010 as spec	cial purpose	devices.	
PFD's must meet the requir	ements for both the Lifejacket under ISO ons of EN 341, EN 353, EN 354, EN 355,	12402 and	Fall Arrest Harness for the relev	
This type of device is to be	exempt from the donning test.			



PPE-R/08	3.019
Version 1	

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	8		∨ Vertical Group	21.04.2018
				21.04.2018
			⊠ EU PPE Working Group	29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE 7:2007+A1	N: ISO 12402- :2011	☐ Other:
Article:	Annex:	Clause: 4.	11.1.3	
Key words:				
Oral inflation systems				
Question:				
Paragraph 6 under cla	use 4.11.1.3 for Oral inflation systems states:			
'It shall not be possible mechanism open.'	e to lock an oral inflation mechanism in the ope	en or closed	position. A friction fit dusk cap s	shall not be used to lock the
Question: Is it possible	to test a PFD which includes a lockable oral	inflation med	hanism as a Part 6, Special pur	pose device?
Solution:				
Yes, but this should be	limited to specific applications which are only	y to be used	by specially trained persons.	



PPE-R/0	8.	.022
Version	1	

* * *	RECOMM	ENDATION 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 7+A1:2011	I: EN ISO 12402-	Other:
Article:	Annex:	Clause: 4.8.	2.7	
Key words: IRM Oil, Foam testing				
Question: 1. In clause 4.8.2.7 Oil resistance of foam flotation material it references use of ASTM Reference Oil No. 2. All reference to this oil has been removed from existing tables of ISO 12402-7:2007+A1:2011. Is the use of ASTM Reference Oil No. 2 still to be used for this exposure? 2. What compliance criteria shall be used when testing in accordance with ISO 12402-7:2007+A1:2011, clause 4.8.2.7 with the Diesel exposure?				
Solution:				
1. Replace ASTM Refethroughout the standar	erence Oil No.2 with Diesel Fuel accord	ding to EN 590 (curre	ent valid version) to be consiste	ent with exposures
cases in modern PFD's	nce criteria in 4.8.2.7 to test the tensile s the foam is encased in an outer fabri otter indication of compliance criteria as	c and so does not pla	ay a structural part for strength	. It was agreed by VG8 that
The following complian	ce criteria should be used when testin	g in accordance with	ISO 12402-7:2007+A1:2011,	clause 4.7.2.7:
,	_ per Table 12 of ISO 12402-7:2007+A1 (min thickness of 20mm)	:2011)		
Exposure 70h in Diesel fuel acco Requirements	rding to EN 590 (current valid version)			

Status: February 2024

The dimensions of the foam shall be recorded before and after the exposure. The maximum loss of volume in any sample shall not exceed

5 % and there shall be no softening, or deterioration of a material, when compared with unconditioned specimens.

The maximum loss of buoyancy for the average of all samples shall not exceed 10 %.



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	108, clause 5.1 under general requirements, it r dull colour materials are not acceptable. It is vo 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 co olly transparent or materials in any shade of u lour requirements apply only to the neck shou	ndecorated	blue in the visible areas when i	



PPE-R/(08.026
Version	1

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Number	of pages: 1			Арр	roval stage :	Approved on :
Origin : V	ertical Group 8/			\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 9:2006+A1			☐ Other:
Article:		Annex:	Clause: 5.	5.10.2	2.1	
Key word	ls:					
Inflation t	ests					
Question	:					
There is	no test method	included in 5.5.10.2.1 for the inflation tests.	What is the	corre	ct method to perform these	e tests?
Solution:						
A test me	ethod should be	e included. The standard currently states:				
'5.5.10.2	Inflated PFDs					
5.5.10.2.	1 The inflation	test shall be carried out twice: once at (- 5 ±	: 1) °C and c	once a	at (+ 30 ± 1) °C.'	
The follow	wing method sh	nould be used:				
a)	are then inflate	all first be conditioned by exposing them for ed. One shall be activated using the automaner shall be activated using the manual inflated.	tic inflation s			
b)	PFDs are ther	s shall then be conditioned by exposing them n inflated. One shall be activated using the a and the other shall be activated using the ma	utomatic infla	ation	system by placing it in sea	



PPE-R/0	8.	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 sl	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/(08.028
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/prE	N: ISO 15027-1:2012	Other:
Article:	Annex:	Clause: 4.	12.2	
Key words:				
Thermal testing				
Question:				
For dual approval of imn standards?	nersion suits in accordance with ISO 15027	and SOLAS	can one set of thermal testing I	pe read across for both
3:2012 approval where the Where thermal tests have SOLAS approval (unless	ve been carried out in accordance with SOLA the test method used (i.e. temperature and eve been carried out in accordance with ISO 1 sthe test method used for ISO 15027-3:2012	exposure time 15027-3:201 2 (i.e. tempe	e) are identical to the requirements 2 requirements the results cannularity and exposure time) is ide	ents of ISO 15027-3:2012. not be used in support of a entical to that in the SOLAS
testing requirements). Wrequirements.	/here the test method used is not the same t	the tests wol	uid need to be repeated in acco	rdance with SOLAS testing



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: (Clause: Table 13, Annex B
Key words: Abrasion Resistance for Inflatable Chamber Material	
Question: The Abrasion Resistance Test for inflatable chamber material has indefined in Annex B and the Martindale Method defined in ISO 12947 What is the correct method to be used and what is the compliance of	
Solution: VG8 propose that the Wyzenbeek Method is the appropriate abrasio As the intent of the compliance criteria is to validate the tensile stren performed in accordance with ISO 13934-2 after the method defined	gth of the material after abrasion, a tensile strength test shall be



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	.3.1	
Key words:			
Face plane angle and Torso angle			
Question:			
In clause 5.6.3.1 of EN ISO 12402-2:2006+A1:2010 for lifejackets level the requirements for trunk angle and face plane angle relate to each previously in the 2006 version of the standards?			
Solution:			
The requirements in clause 5.6.3.1 set the requirements for the avera 12402-2:2006 and EN ISO 12402-3:2006. The requirements for each			quirements of EN ISO
No individual subject's torso angle shall be less than 20° behind verti	ical.		
No individual subject's face plane angle shall be less than 30° above	horizontal.		



PPE-R/08.033		
Version 1		

	RECOMMENDA	ATION 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 12402-9:2006 +A1:2011	☐ Other:
Article:	Annex:	Clause: EN ISO 12402-9:2006, clause 5.1 9:2006+A1:2011, clause 5.5.1	, EN ISO 12402-
Key words:			
Order of testing: Temp	erature cycle test and rotating shock bin test		
Question:			
after submitting the sa	O 12402-9:2006, clause 5.1, in the last sentent mples to the temperature cycling test (see 5.5	3.3) and the rotating shock bin test (see 5.5.2)	2).
In the amendment EN added.	ISO 12402-9:2006+A1:2011 clause 5.5.1, the	above-mentioned sentence was deleted ar	nd Table 1 and Table 2 were
What is the correct ord	ler for testing?		
Solution:			
The temperature cycle other tests.	test shall always be performed first, then the	rotating shock bin test. The two tests shall t	pe performed prior to all
temperature cycle test most likely brake/crack	otentially brake down of a material/component. If a material/component becomes e.g. brittle is if it is subjected to the rotating shock bin test detected or be very hard to detect.	due to the temperature cycle test, then the	material/component will
rotating shock bin test	06, clause 5.1 mentions the temperature cycle was 5.5.2 and the clause for temperature cycler. Unfortunately this has been lost with the interest of the contract of the contr	le was 5.5.3. This was because it was part o	of the requirement to carry



PPE-R/08.034 Revision 01 Language: E

RECOMMENDATION FOR USE

	RECOMMEND	ATION FOR	(USE	
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 P	PE Regulation PPE Guidelines	⊠ EN/prEN	: ISO 12402-7:2007+A1:2011	Other:
Article:	Annex:	Clause: 4.9		
Key words: Unsupported Inflation Cha	mber Materials			
the inflation chamber. The RF welded no differently the product has had great such already been updated to to material. We are now reco	ed inflatables within the United States and edesign in question utilizes a thicker lay than standard inflation chambers, however excess within the US and Canada based coest this material since most of the material eiving requests for certification to ISO 12	ver of PU that a er it is allowed on its very simpial tests for sta	icts as the inflation chamber in to "float" within a separately s plistic design. The US and Ca ndard inflation chamber mater	ndependently. The material is ewn cover material. This nadian standards have rial isn't relevant for this
proposal includes a new T	no requirements within ISO 12402-7, it is able to include the new requirements. To been replaced with the equivalent ISO	The requiremen	nts are consistent with the US	and Canada except that all
Proposal follows on pages	2 and 3.			



PPE-R/08.035
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: EN ISO 12402: 2006+A1:2010 Parts 2-6	☐ Other:
Article:	Annex:	Clause: n/a	
Key words:			
Pouch type PFD's			
Question:			
Is it possible to approve a	pouch type PFD as a Lifejacket?		
Solution:			
general use by no defined buoyancy provided. It must	no defined end user. pe PFD's in accordance with ISO 12402-6 with user, this type of PFD can only be cerest also be marked appropriately with addition in the without the necessary user intervention	tified as a performance 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 ✓ 29.11.2019
Question related to PPE Regulation	☑ EN/prEN: EN ISO 15027-1:2012☑ Other:& EN ISO 15027-2:2012
Article: Annex:	Clause: 4.12
Key words:	
Preconditioning of immersion suit material samples	
Question:	
	ture cycling and rotating shock bin test be carried out first prior to all other tests but performing the tests from clause 4.12?
Solution:	
Yes	
All material samples must go through the temperature the rotating shock bin test is not applicable for the ma	cycling test as a preconditioning to all the individual material tests in clause 4.12, but terial samples.



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 testing is to be carried out for PFDs specifically intended for fire 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

RECOMMENDATION FOR USE

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Number of pages: 2		Ap	pproval stage :	Approved on :
Origin : VG8				13.12.2017 13.07.2018 05.11.2018
Question related to		☑ EN/prEN:	EN 14225-1:2017	☐ Other:
Article:	Annex:	Clause:		
IZ.				
Key words: Surface wetsuit testing	requirements			
Surface welsuit lesting	requirements			
Question:				
Working Group minute	surface activities such as water skiing etc. are as from 2013) and therefore require EC type- vetsuits, only EN 14225-1 which is for diving w	-examination ar		
What testing requiremed PPE Regulation (EU) 2	ents are to be used to show compliance with 016/425?	the basic healt	th and safety requirements I	aid down in Annex II of the
Solution:				
The standard for EN 14	1225-1 shall be used with exemptions of those	e requirements s	specific for diving application	
Therefore wetsuits inte	nded for surface activities shall comply with th	ne following clau	uses of EN 14225-1 (see Tal	ole overleaf).



PPE-R/08.042 Revision 00 Language: E

RECOMMENDATION FOR USE

Approval stage : Approved	l on :
Horizontal Committee 13.07.20	18
use 5.5.10.2.3 12402-9:2006+A1:2011,	
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	hanism when
e PFD should be between 13N and 120N.	
	 ✓ Vertical Group ✓ Horizontal Committee ✓ EU PPE Working Group ✓ 05.11.20



PPE-R/08.043 Revision 02 Language: E

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Number of pages: 1			App	roval stage :	Approved on :
Origin : VG8			\boxtimes	Vertical Group Horizontal Committee EU PPE Working Group	16.05.2018 13.07.2018 05.11.2018
Question related to		⊠ EN/prEN: 5:2006/A1:20		ISO 12402-	Other:
Article:	Annex:	Clause: N/A			
Key words:					
PFD Hydration Pack					
Question:					
with PPE Regulation 2	ok to include a hydration pack built into or on the control of the	D. The hydration	n pa	ick would serve as a store	for liquid drinks used during
What additional testing	or evaluation should be conducted to ensur	e hydration pa	cks	do not affect performance	of the PFD?
Solution:					
-	to be conducted on the PFD with the hydrat				
	est (Clause 5.3.4.2 of EN ISO 12402-5 011): to be carried out with the hydration p				
9:2006+A1:2	ting (Clause 5.6.3 of ISO 12402-5:2006 011): to be carried out with the hydration p n water performance requirements should be	ack filled with			
	t (Clause 5.6.2 of ISO 12402-5:2006+A011): to be carried out to ensure that donning				
	than level 50 that have a built hydration pact I in water performance should be satisfied in				ack, the relevant clauses for



PPE-R/08.044 Revision 01 Language: E

RECOMMENDATION FOR USE

RECOMMENDATION FO	N OOL	
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/pre	EN: EN 14225-2:2017	Other:
Article: Annex: II, 1.4 Clause: 7.	1	
Key words:		
Information supplied with a diving drysuit		
Question:		
The new published standard EN 14225-2:2017 is incorrect in clause 7.1 for infithe text from clause 7.2 (Customer information to be supplied at the point of sabe supplied for clause 7.1?		
Solution:		
To satisfy PPE Regulation annex II 1.4, the previous requirements of EN 14225- Name and address of the manufacturer and/or his authorised represer Type of suit; Number of this document; List of all the components supplied; If the inflation hose is provided with a restrictor to limit airflow, a stater List of accessories and spare parts that are available; Explanation of any pictograms and markings.	ntative;	d, as follows:

Status: February 2024



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Version 1

RECOMMEND	OATION FOR USE	
Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 8	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	28.05.2021 01.10.2021 18.11.2022
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 requirer 1. What is to be assessed to be a sufficient indicator visibility for in EN ISO 12402-2:2020 clause 5.1.4 Inflation status indicators "Inflatable lifejackets shall indicate if the inflator is correctly arme 12402-6:2020, 6.6. All inflation status indicators shall be grouped they are viewed simultaneously when examined prior to donning ar a buddy after donning the PFD."	flatable PFDs in clause 5.1.4? ed with a sealed cylinder and fully operable or located such that when installed on a PF	e except as specified in ISO D in their intended position,
Solution: It shall be possible to inspect the inflation mechanism indicators, I buddy. For example, by unzipping or opening part of the cover to access the area the inflation mechanism is located. The manufacturer's instructions shall be taken in to consideration we	o inspect, or temporarily readjusting the PFI	



Version 1

RECOMMENDATION FOR USE

on :
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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).

Status: February 2024



Version 01

\times \star		RECOMMENDA	ATION FOR USE		
Number of pages: 1			Approva	l stage :	Approved on :
Origin : Vertical Group	0 8			zontal Committee	31/01/2022 30/04/2022 31/08/2023
Question related to ☐ PPE Regulation ☐ PPE Guidelines ☐ EN/prEN: EN ISO 1240 9:2020			O 12402-	Other:	
Article: Annex: Clause: 5.6.1.1, 5.6.1.2 & 5.6.1.3, Table 3, Table 4 and Table 5					
Key words:					
Test subject selection	criteria Multi-Sized Bu	oyancy Aids (level 50)			
	iated in the footnotes of				5.6.1.2 (para 2), but this is loyancy aids for test
Solution:					
Multi-Sized Buoyand	• • •				
shall be tested. It is re	yancy aid (level 50), the ecognised that a smalle er than for lifejackets (le	r number of test subjec	ts is tested for buoyan	cy aids, because the in	st subjects in each size -water performance
Footnote a) of Table 3	3 applies across the full	range of sizes so that	no more than two third	ls of test subjects shall	be of any one gender.
Footnotes b), c) and c	d) of Table 3 do not app	ly, as the manufacture	rs stated user mass/siz	ze range is used for sul	bject size selection.
	Table 3 are applied for cturer's stated range, p				est and largest body mass
See example below for Buoyancy Aid Lowest mass range ±5 % Mid mass selection Upper mass range ±5 %	23.75kg and 26.25 kg One subject between 27kg and 38kg	40-60kg One subject between 38kg and 42kg One subject between 43kg and 57kg	60-80kg One subject betweer 57kg and 63kg One subject betweer 64kg and 57kg	80-100kg One subject between 76kg and 84kg	100kg+ One subject between 95kg and 105kg One subject between 106kg and 120kg One subject >120kg (upper adult mass range of Table 3)

In addition, where a manufacturer does not state an upper limit to the user mass range, for example, states a size range of 100kg+, then the largest size category (>120kg, >1900mm) of Table 3 shall be used as the upper cell.

Note: This would also be the case for any other sizes stating no upper limit, e.g., 70kg+, 90kg+.

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/09.002
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/prEN: 1621-2: 2014	Other:
Article: Annex: II	Clause: 4.6 Sizing	
Key words:		
Motorcyclists back protector sizing intervals		
Question:		
EN 1621-2: 2014 clause 4.6 Sizing, states "The waist to shoulder ler 5cm."	ngth, expressed in centimetres shall be sp	ecified as a range up to max.
Should this maximum 5cm range be the number of centimetres between should this maximum 5cm include both the maximum and minimum		imed (e.g 45 – 50cm) OR
Solution:		
Providing that there is an 'overlap' in the sizing across the range of a would be considered acceptable for the 5cm range to be the number However, if no 'overlap' in values is present or only a single size of p 56cm) the 5cm range should include both the minimum and maximum.	r of centimetres between the maximum an protector is available, (for example Size S	d 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 ✓ 22.04.2019 				
	N/prEN: EN 14021: 2003 & EN				
Article: Annex: Claus	e:				
Key words: Elbow protectors in addition to stone shields for motorcycle riders					
Question: EN 14021: 2003 (stone shields) further to chest protectors covers also show offered to the market with elbow protectors connected to it. Which standard has to be referred to when it comes to type approval and ce					
which standard has to be referred to when it comes to type approval and co	Stutication:				
Solution: The additional elbow protectors have to comply with the requirements of their dedicated standard EN 1621-1: 2012					



PPE-R/09.005
Version 1

Number of pages: 1		Approval stage :	Approved on :	
Origin : Vertical Group 9 / Ricotest		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 22.04.2019	
Question related to PPE Regulation Winter Sports Protectors	⊠ EN/prE EN 1621-2	N: EN 1621-1: 2012 & 2: 2014	☐ Other:	
Article: Annex:	Clause:			
Key words: Impact protectors for use in motorcycling AND skiii	ng			
Question: Considering that no dedicated harmonised standar back & limb protectors intended not only for motore			orts: How to test and certify	
Solution: Testing: The protector must completely satisfy the requirem the relevant EN 1621 testing requirements being o "- 20°C" and not "- 10°C" should also be carried outesting shall be done at lab conditions within 5 min	btained for the mandatory amut. The duration of the condition	bient and wet impact conditions ining at -20°C shall be a minim	s, additional impact testing at	
Certification:				
A common certification for use in motorcycling and The overall classification level claimed shall be bas 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 					
	rEN: EN 1621-1:2012 & EN					
Wet Impact Test After Hydrolytic Ageing 1621-2:2	2014					
	EN 1621-1 clause 6.3.4.3 &					
EN 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 1621-1 claus	e 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 sealed bag.						



PPE-R/09.010)
Version 1	

Number of pages: 1			Approval stage :	Approved on :		
Origin : SATRA (UK)			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 22.04.2019		
Question related to Impact Testing	☐ PPE Regulation	⊠ EN/prE	N: EN 16027: 2011	☐ Other:		
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	r Impact Stre	ength testing in 5.6.1 and the pr	ocedure for this test in		
	details the impact energy that should be used use 5.6.2), specify the weight of the carriage v			t of apparatus (clause 5.6.1)		
	weight carriage to carry out this test, providing specified in the standard?	ng that the c	orrect drop height has been cal	culated prior to testing to		
Solution:						
No. A heavy mass falling a short distance may not produce the same effect as a small mass falling from a greater height.						
A carriage weight of 2.5 kg should be used.						



PPE-R/09.012
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: EN 1621-1: 2012	Other:
User Info	ormation			
Article:	Annex: C	Clause: 8		
Key word	ds:			
Informati	ion by the manufacturer			
Question	1:			
The instr	ruction for use shall contain according to clause 8.e.2 the perfo	rmance o	f impact attenuation:	
1)	Is it sufficient if at least the highest (poorest) result according mentioned?	to clause	6.3.4 (ambient, wet, high and I	ow temperature test) is
2)	Instead of the exact recorded value obtained during type app minimum requirement value given by the standard for the claim			rer states at least the
Solution:				
1)	Yes, because this value (e.g. mean value for wet test) determ	nines the p	performance level in the markin	g.
	More results can be given if desired by the manufacturer.			
2)	No. This would not be acceptable.			



PPE-R/09.013
Version 1

	RECOMMENDATION	1 I OIL OOL				
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 \(\subseteq E	N/prEN: EN 13594: 2015	Other:			
Tear St	ength					
Article:	Annex: Claus	se: 4.6				
Key wor	ds:					
Tear Tes	sting, Determination of Pass / Fail, Protective Overlays					
Question	1:					
	4: 2015 requires 3 samples of each material type used in the protest piece shall comply with the performance requirements.	ective layer to be tested for tear, and	that the lowest result on a			
1)	The current wording suggests that each material type / layer of mindividually. Is this correct?	naterials that forms the protective laye	er must be tested			
2)	2) The current wording suggests that each individual material type / layer of materials that forms the protective layer must meet the requirements of EN 13594: 2015. Is this correct?					
3)	 If protective overlay patches are present on the palm and back of the hand, how should one test and evaluate the tear resistance level according to EN 13594: 2015 					
Solution						
1 & 2) Each of the three samples required for tear testing shall be taken through the full thickness of the protective layer to include each of the materials found within the protective layer, and all layers are to be tested together. The lowest result on a single test piece shall comply with the performance requirements.						
3) In cases where reinforcement and / or protective overlay patches are present, the results obtained on the weakest parts of the structure should be considered.						

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				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
		2011, EN ISO				
		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
10.000		2011, EN ISO	Catoolo William Community	21 12010	21 4 2010	07 02 2020
		20346: 2014 and				
		EN ISO 20347:				
		2012				
10.004	01	EN 15090: 2012	Insulation against heat, assessment, deformation	21-4-2018	21-4-2018	29-11-2019
<u>10.005</u>	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 outsoles	21-4-2018	21-4-2018	29-11-2019
<u>10.007</u>	01	EN ISO 20347:	Water resistance test	21-4-2018	21-4-2018	29-11-2019
10.008	01	2012 EN ISO 20344:	duration Key words, Denetration	21-4-2018	21-4-2018	29-11-2019
10.006	01	2011	Key words: Penetration resistant inserts dimensions,	21-4-2010	21-4-2016	29-11-2019
		2011	coverage area			
10.009	01		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: 2011	Water resistance, insock, water detection	21-4-2018	21-4-2018	29-11-2019
10.014	01	EN ISO 20347:	Certification, vamp lining	21-4-2018	21-4-2018	29-11-2019
		2012	mandatory			
<u>10.015</u>	01	EN ISO 13287:	Slip resistance	21-4-2018	21-4-2018	29-11-2019
40.047	04	2012	0	04 4 0040	04.4.0040	00.44.0040
10.017 10.018	01 01	EN ISO	Overshoe, slip resistance Ankle Protection , how many	21-4-2018 21-4-2018	21-4-2018 21-4-2018	29-11-2019 29-11-2019
10.016	01	20345:2011 cl.	areas per shoe	21-4-2016	21-4-2010	29-11-2019
		6.2.7				
		EN13634:2010				
10.019	01		Orthopedic changes on	21-4-2018	21-4-2018	29-11-2019
			safety and occupational			
10.020	01	EN ISO 20345:	footwear Water vapour permeability	21-4-2018	21-4-2018	29-11-2019
10.020	01	2011 and EN	(WVP), quarter lining	21-4-2010	21-4-2010	29-11-2019
		ISO 20347: 2012	(vv vi), quarter ining			
10.021	01	EN ISO	Outsole cracking	21-4-2018	21-4-2018	29-11-2019
		20344:2011	9			
10.024	01	EN ISO 13287:	Penetration resistance, slip	21-4-2018	21-4-2018	29-11-2019
40.005	0.1	2012	resistance	04.4.0046	04.4.0046	00.44.0040
10.025	01	EN ISO 20346: 2014		21-4-2018	21-4-2018	29-11-2019
<u>10.026</u>	01	EN 13832-1:	Stocking, degradation test	21-4-2018	21-4-2018	29-11-2019

Status: September 2021

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

	RECOMMENDATION	N FOR USE	
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
Question related to PPE F	EN I	N/prEN: EN ISO 20345: 2011, SO 20346: 2014 and EN ISO 17: 2012	☐ Other:
Article: A	nnex: Clau	se: 8	
Key words: Obsolescence			
"Safety footwear shall be supplied to the of The following information shall be given: 7) obsolescence deadline or period of obsolescence deadline is different manufacturer himself because he give figures. The problem is more critical with prench manufacturers try to define of the standard with a sentence li of obsolescence." This sentence is not conform to the Does that mean that CE marking it Solution: To avoid inconsistent information, "When stored under normal condition of the standard with a sentence in the sentence is not conform to the Does that mean that CE marking it Solution: To avoid inconsistent information, "When stored under normal condition of the standard with a sentence in the sentence is not conform to the Does that mean that CE marking it solution: To avoid inconsistent information, "When stored under normal condition of the standard with a sentence in the sentence is not conform to the Does that mean that CE marking it solution." To avoid inconsistent information, "When stored under normal condition of the standard with a sentence is not conform to the Does that mean that CE marking it solutions." To avoid inconsistent information, "When stored under normal condition of the standard with a sentence is not conform to the Does that mean that CE marking it solutions."	O11, EN ISO 20346: 2014 and EN ISO 2 sustomer with information written at least in the official collescence. It is knows the conditions. But, when the proposition of the conditions of the proposition of the conditions of the con	is possible to give a limit when the oducts are stored by a retailer or the color anges in the materials in the time, it is impossible? Ext to help the person that puts the promidity), the obsolescence date of a forather, rubber and thermoplastic materials in TPU manufacturer to determine them.	products are stored by the customer, it is very difficult to avoid to answer to this point s not possible to give a date duct on the market: otwear is generally: rials (such as SEBS etc) and



PPE-R/10.003
Version 01

RECOMMENDAT	ION 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
<u> </u>	☑ EN/prEN: EN ISO 20345: 2011, EN ISO 20346: 2014 and EN ISO 20347: 2012	☐ Other:
A ()	Clause:	
Key words: Outsole without continuity		
Question:		
How should footwear with outsoles consisting of several different mater 20346: 2014 and EN ISO 20347: 2012? This may be footwear with on heel and a different material (such as a cellular material from the midso outsole design such as shown in the picture below	ne outsole material type covering the forep	part, another covering the
Solution: Any construction should be accepted provided that <u>all</u> of t area or other areas not in direct contact with the ground) or requirements when this is claimed. For all other outsole rematerials that are not touching the ground where a specim materials in contact with the ground or for example a ladd	comply with the resistance to fuel or equirements these shall only be tended the nen can be obtained from the foot	oil outsole sted on visible



PPE-R/10.004 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 15090: 2012	Other:		
Article: Annex:	Clause:				
Key words: Insulation against heat, assessment, deformation					
insulation against neat, assessment, deformation					
Question:					
Sometimes during the test the outsole swells significantly modifying are two possibilities:	the area in o	contact with the hot plate. Wher	n the test is finished there		
 When the outsole cools down the swelling disappears. 					
 When the outsole cools down the swelling remains there, but 	ut maybe red	luced.			
The question is how to assess the test itself - The swelling impedes so is swelling acceptable whilst in the sandbath?	the normal o	contact (heat transfer) between	the plate and the footwear		
Also are signs of melting acceptable?					
Solution:	mara than 1	O mm during the test this is a si	ian that the contact area		
If the vertical position of any part of the footwear upper increases by with the hotplate could have been affected (reduced) and the footwe			gn that the contact area		
Alternatively, a frame (or similar mechanism) could be placed over the applying a downward force to the boot at the start of the test but wou potential "swelling" during testing could be prevented, as well as the	uld restrict ar	ny upwards movement during th	ne test. This way, any		
Either way signs of material melting should be considered as a sign	of non-comp	oliance			



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 PPf	E Regulation		N: EN ISO 20345:2011, 346:2014, EN ISO I2	☐ Other:
Article:	Annex:	Clause:		
Key words:				
Synthetic upper materials on cla	assification I footwear			
Question:				
	Inthetic material on upper which are u al is usually used for small surfaces :			
	TOTAL PROPERTY OF THE PROPERTY	NEW LINE		
	5: 2011 standard (§5.4) these component to conform because of the componen		e tested as upper components	but the water vapour
Is it possible to certify these mo	odels to EN ISO : 2011 classification I	?		
Solution:				
Certification in class I is possible requirements):	e provided that the overlay componen	nts (that do i	not meet the water vapour coef	ficient and permeability
 For Design A - Account 	int for no more than 40% of the whole	area of the	upper (excluding the collar) - s	ee # below
2. For Designs B, C or I	O - Account for no more than 10% of the	he whole ar	ea of the upper (excluding the t	oe cap, counter and collar)
Always cover an upper	er material that is fully compliant with I	EN ISO 203	45/6/7	
(Point 3 does not apply to mate	rials covering the toe cap and the cou	inter)		
# For information, note that that total upper area	at in general for design A footwear the	toe cap and	d 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	outsoles?		
Solution				
One possible solution (based on this central ve	which is dependent on design of the machine ertex without using the wedge – see photogra	e) is to adjust phs below	t the 7 °angle on the testing dev	rice for the heel mode







PPE-R/10.007 Version 01

Number of pages: 1	Approval	stage :	Approved on :
Origin: TUV / PFI / INESCOP		cal Group contal Committee PE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to PPE Regulation	⊠ EN/prEN: EN ISC	20347: 2012	Other:
Article: Annex:	Clause: 6.2.5		
Key words:			
Water resistance test duration			
Question:			
It says in clause 6.2.5 of EN ISO 20347: 2012 that the requiremen 15 minutes. But this is different to that stated in EN ISO 20344: 20	t for Water resistance ac 11 and EN ISO 20345: 2	cording to EN ISO 20 2011 as follows:	0344, 5.15.2 is 3 cm ² after
EN ISO 20344: 2011 Clause 5.15.2.4.8 states 80 minutes			
EN ISO 20345: 2011 Clause 6.2.5 states 80 minutes			
EN ISO 20347: 2012 Clause 6.2.5 states 15 minutes			
With regard to EN ISO 20347: 2012 Clause 6.2.5 what is the recor	nmended way to procee	d for notified bodies a	against this background?
Solution:			
Notified bodies should take the 80 minutes, as it says in EN ISO 20	0345: 2011.		



2. Four – please see answer 1 above

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 re	esistant inserts dimensions, coverage area		
Question:			
	1 of EN ISO 20344:2011 "Section the footwe I the line left by the feather edge of the last.		ing the distances between
The questions are:			
- 1. In which plac	es shall the footwear be cut?		
- 2. How many co	uts shall be made?		
- 3. How many m	neasurements of distance X and Y shall be r	made?	
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			
Solution:			
It should be noted that the by cutting into the sample	e requirement applies to the whole perimete e:	er of the insert but at least the following four	points should be checked
1. The footwear shall be cut at - The heel; The forepart; The waist and The toe cap area			

Status: September 2021



PPE-R/10.009
Version 01

	RECOMMENDA	TION FU	N USL	
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 Dy	es			
	potwear should the Notified Body require the tance with the requirements?	test reports	proving that the content of azo	dyes listed in the directive
likely. However, as a mi	he PPE Regulation 2016/425 does not different nimum, all materials present on the inner surflous substances listed in Annex 17 of REACH	face of the f		



PPE-R/10.011	
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/prEN	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. Thi	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/ ι	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, insoc	ck, water detection			
Overtions				
Question:	b.o.z. the foot	lining wate	u namatustian san anlu ba datasi	had if the imposite in manager
	when the footwear incorporates a membrane wet, but it does not penetrate to the upper s be done?			
Solution: On finishing the test, the requirement.	ne insock 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✓ 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:		
Key words:				
Certification, vamp linin	g mandatory			
Question:				
When revising EN 347 ISO 20347:2004 there	it was decided that the vamp lining did not new was an "O" in Table 2.	ed to be ma	ndatory, since there was no toe	cap. For that reason in EN
However when revising not fulfilling the requirer	the 2004 version there was an "X" for vamp I ments for vamp lining.	ining in the	2012 version. As it is now it is n	ot possible to mark 20347
What is the recommend	ded way to proceed for notified bodies against	this backgr	ound?	
Solution:				
Notified bodies should	consider the "X" to be an "O".			



PPE-R/10.015 Version 01

Number of pa	ges: 1	Approval stage :	Approved on :
Origin : TC16	1/WG3	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question rela	ted to PPE Regulation	☑ EN/prEN: EN ISO 13287: 2012	Other:
Article:	Annex:	Clause: 5 & 6 and Figure E.1	
Key words:			
Slip resistance	е		
to to	as been noted that EN13287 now indicates a requirement esting (5.2) and secondly after preparation but before testimed unnecessary and excessive if alternate appropriate	ting (7.1.7 re. footwear and 7.2.5 re. floor	
2. Figu	ure E.1 does not align precisely with the text in E.4.3; the	text in E.4.3 is correct and the figure sho	uld be amended.
What is the re	ecommended way to proceed for notified bodies against t	his background?	
Solution:			
reco Cor <u>foo</u>	uses 7.1.7 and 7.2.5 are identically worded except for the commended that the wording of these clauses should be indition the <u>item of footwear/floor</u> in accompany in the condition that the condition is accompany to the condition to the re-condition to the condition that the conditio	nterpreted as reading: ordance with 5.2 prior to the fined following the initial condition	rst test. The <u>item of</u>
atn	nosphere. The footwear/floor however show lowing preparation.		
2. Ref	er to amended figure below:	Ting	



PPE-R/10.017 Version 01

Number	of pages: 1			Approval stage :	Approved on :
Origin : C	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:				
Overshoe	e, slip resistand	e			
Question	1:				
1.	Should electric	cally insulating overshoes (worn over	er classical footwear)	meet the requirement for slip re	esistance?
2.	Can an oversh 2012?	noe or overboot be certified to and r	marked with EN ISO 2	0345: 2011; EN ISO 20346: 20	114 and EN ISO 20347:
Solution:					
1.	be given to the	of footwear shall be tested for slip r e interaction between the overshoe ss, ergonomics etc) should be addre	and the footwear beir		
2.	overshoe or o	of the standard does not include thi verboot and the footwear being worldressed by EN ISO 20345/6/7.			



PPE-R/10.018 Version 01

Number	of pages: 1	А	pproval 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		EN ISO 20345:2011 3634:2010	☐ Other:
Article:	Annex:	Clause:		
Key word	ds: otection , how many areas per shoe			
Question 1. 2. What is the	In EN ISO 20345: 2011 no requirements for the protective In EN ISO 13634: 2010 the picture seems that the area X he recommended way to proceed for notified bodies agains	is only at the o	uter 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 an	kle (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) or	n both the outer and inner side	e of both left and right



PPE-R/10.019 Version 01

Number of pages: 2			Approva	al stage :	Approved on :
Origin : TUV				tical Group rizontal Committee PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to PPE Re	egulation	☐ EN/prE	N:		Other:
Article: Ani	nex:	Clause:			
Key words:					
Orthopedic changes on safety and	occupational footwear				
Question:					
With reference to EN ISO 20345: 20	011 and EN ISO 20347: 2012, wh	ich tests are	e necessa	ary for the assessment	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
Question related to	☐ PPE Regulation	☑ EN/prEN: EN ISO 20345: 2011 and EN ISO 20347: 2012	☐ Other:
Article:	Annex:	Clause:	
Key words:			
Water vapour permea	bility (WVP), quarter lining		
Question:			
	onsist of more than one material; e.g. quarter of clauses 5.5.1 up to 5.5.5 are required. Is the		0345: 2011 and EN ISO
Solution: The test is considered	to have no value (hence unnecessary).		
No test of WVP is requ	uired for materials used in the defined counte	er area:	
Note – Height of define	ed region to be as given in in the "Design A"	column of Table 10 in EN ISO 20345: 2011	
supplied and in	•		
If there is no stiffener	or the stiffener is perforated, the material sha	all comply also WVP.	



PPE-R/10.021 Version 01

RECOMMENDATION 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	x B does not correspond to the title: outso	ole cracks			
corresponding to cleat height What is the recommended way to proceed for notified bodies against this background?					
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 such ng surface compound. It is considered that thi vhich case what is the best way to clearly defi	s informatio	n may be valuable when analys	sing any future differences in
Solution:				
	rposes only, EN 13287 slip resistance test repshows the tread design and also colour plus to			
	not a precise measurement when testing foot a should be established. The aim is to assess			
(Note agreed solution of practicality)	loes not list a requirement to include the dens	sity of the ou	utsole as it is a destructive test	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/prEN: EN ISO 20346: 2014	Other:
Article: Annex:	Clause:	
Key words:		
Question:		
A number of editing errors have been detected in EN ISO 20346:201-	4.	
What is the recommended way to proceed for notified bodies against		
, ,	·	
Solution:		
Take into account the 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/prEl	N: 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 - there is a procedure for the preparation of samples for degradation test that states "the lining shall be removed"				
Standard EN ISO 20345 : 2011, table 2, includes a note to say that the "stocking covering the last before the moulding process is not considered as a lining"				
Below is a picture of a cross section of polymeric footwear with a stocking So the question is :- Should this stocking be considered as a lining and be removed before testing or should it be left in place for the degradation test?				
	Polymeric mat	terial		
	Stocking			
Solution:				
If the removal of the stocking damages the sample, it is recommend to test the full complex including the stocking but if the stocking can be removed without damaging the sample then this should be done.				



PPE-R/10.027
Version 01

		RECOMMEND	ATION FO	RUSE	
Number	of pages: 1			Approval stage :	Approved on :
Origin : P	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	ls:				
Toe cap,	cracks				
Question	<u> </u>				
"In addition same according to the same acco	on, the toe cap ceptance criter n 2 - In EN 129 otwear testing	20345:2011 clause 5.3.2.3 includes the follows shall not develop any cracks which go thro ria is not included in Clause 5.3.2.4 for assessed 568: 2010 clauses 4.2.4, 4.2.4 and 4.4 the poposition of the popular injurious surfaces produced – Should ther	ough the mate ssment of the resence of an d 5.3.2.4 shar	rial, i.e. through which light can toe cap after the compression to y sharp edges in the toe caps a	be seen." However, the test – should it be? Ifter testing is assessed.
Solution:		ar injurious surraces produced – Sriodid ther	ie be:		
1)	Yes - Followi	ng compression testing of footwear to EN IS ddition, the toe cap shall not develop any cra			
2)		o testing in accordance with EN ISO 20345: s damaged in such a way that it could poten			



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 ✓ 29.11.2019
Question related to PPE Regulation	
Article: Annex:	Clause:
Key words:	
Water absorption / desorption	
Question:	
In an item of safety footwear manufactured with a full lining, which commaterial is placed between the insock and insole as a full sock as is swith a full insock, removable and water permeable, as defined in table - Perform the water absorption / desorption on insole only - Perform the water absorption / desorption on this "lining" manufactured with a full lining, which commaterial is placed by the perform the water absorption / desorption on insole and the perform the water absorption / desorption on both insole and the performance of th	ometimes found on firefighters footwear), if this lining material is used 3 of EN ISO 20345 : 2011, which testing scenario shall be followed?
Solution:	
If the insock includes an impermeable membrane, water absorption / of the lining does not include an impermeable membrane, the test piece	



PPE-R/10.029
Version 01

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Number of pages: 1	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			
However shoes with an o especially critical for ergo	pen heel region may not fit the feet correctl	D 20347: 2012 an open heel region is allowery so could easily be lost during the walking ning BHSR 1.1.1 and 1.3.1 may only be partiess this concern?	movement. This is
	sent that can be moved – for instance onto we wearer to configure the strap round the ba	the front part as shown above, a warning sh ck of the foot during use.	nall be included in the user



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 heel	section – slip resistance				
Question:					
0 0					
If an overshoe such as s	shown above is designed (and o	claims) to provide only toe	pro	tection can it be certified?	
	ause the overshoe does not co ss as it will depend on the footw			ce assessment of slip resis	tance (particularly in the
Solution:					
Note when evaluating in equivalent to the maxim with a recommended ite	idered to be PPE and can be conternal clearance it will be necessum recommended by the oversom of footwear), corrosion resists warnings explaining that the presistance is required.	ssary to test the overshoe shoe manufacturer. Other tance (where relevant) and	with prop d stre	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	t closed



PPE-R/10.032 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 15090: 2012	Other:
Article:	Annex:	Clause:		
Key words:				
Insulation against heat, s	sandbath			
Question:				
was removed from the sa	en conducting the test at 250°C, nothing sp andbath, ignition (without a flame) could be spot and sometimes it was necessary to us	observed at	certain locations on the sole. The	nere was continuous and
Solution: When there is localised sclause 6.3.3.).	smoke, this means that there has been igni	tion and the f	lame test criterion should also b	ne applied (EN 15090:2012,



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Version 1

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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
	EN: EN ISO 1/EN 15090:2012	Other:
Article: Annex: Clause: 5.	8.1.3 (EN ISO 20345); 6.7.1 (EN	I 15090)
Key words: Heel shape		
Question: EN ISO 20345:2011, 5.8.1.3 specifies the depth of the sole cleats. EN 15090:20 transverse valleys across the sole.	12, 6.7.1 states that "there are n	o continuous linear
In some cases, the back part of the sole in the heel area is not flat and it is cons	tituted of small linear cleats (see	figure hereunder)
This heel shape should not be excluded because it can improve the footwear pro-	operties (for instance the slip res	istance)
Solution:	_	
The requirement of EN ISO 20345:2011, 5.8.1.3 (the depth of the sole cleats) are valley across the sole) do not apply to any inclined area at the back part of the h		



PPE-R/10.046

Version 1

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: Cla	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 us	sed to test the footwear against the sam	e risk.
The technical file shall take into account the essential requirement of the	Population (ELI) 2016/425 (o.g. sizing	innequeueness)
Without these 2 assessments certification is impossible.	Regulation (EO) 2010/423 (e.g. Sizing,	iiiiocuousiiess).
The EU type examination certificate is given on the basis of the Regulation	on.	



PPE-R/10.049

Version 1

RECOMMENDATION FO)R	USE
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Number of pages: 1	Approval stage :	Approved on :
Origin: CTC	✓ Vertical Group✓ Horizontal Com✓ EU PPE Working	
E	:N/prEN: EN ISO 20345:20 SO 20346:2014; EN ISO :7:12	111; Other:
Article: Annex: C	se: 5.4	
Key words: Upper Overlay		
Question:		
In the context of this question, an "overlay material" is a component of t second (underlying) material that fully complies with the requirements of		
Question :		
What testing should be carried out on an "overlay material"		
Solution: Overlay materials above the height defined in EN ISO 20345:2011, Tat	10 – As they are not an ins	sert no testing is required.
Overlay materials below the height defined in EN ISO 20345:2011, Table Upper, all requirements of EN 20345:2011/20346:2014/20345 • Upper plus overlay material Water Vapour Permeability and of the second se)12 are applicable	ested :



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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; ISO 20345:2011; EN ISO 346:2014; EN ISO 20347:12	Other:
Article: Annex: Cla	use: 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 s 2, 5 mm are regarded as uncleated. This could be not sufficient, because the height could be only 0,5 mm and significantly.		_
Solution: In this case it was agreed that it was particularly important for the user information resistance and to include a warning for the user to examine the cleats before the control of the control		of worn cleats on slip



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Version 1

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Approval stage :	Approved on :
✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	24-03-2006 15-09-2019 07-02-2020
	Other:
1	
O 20345:2011 Clause 8.1 e). Fo	or the manufacturer it is very
sistance on ice and no mention o	of this lack of testing in the
	✓ Vertical Group ✓ Horizontal Committee ✓ EU PPE Working Group EN: EN ISO 20345:2011; 0346:2014; EN ISO



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	N/prEN:	Other:
Article: Annex: Claus	e:	
Key words:		
Samples / specimen numbers		
Question: What should be done where the number of samples specified in EN ISO 203 e.g. Tear test on upper materials. EN ISO 20344:2011. 1 sample from each of 3 sizes. Number of test pieces 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, 5	from each sample = 3	ified in the test method.
Solution:		
In cases of conflict, the requirements of EN ISO 20344: 2011 should be follow (Where possible testing in both perpendicular directions)	owed	



PPE-R/10.055 Version 01

Number of pages: 1		App	roval stage :	Approved on :
Origin: INESCOP		\boxtimes	Vertical Group Horizontal Committee EU PPE Working Group	15-09-2019 07-02-2020
Question related to PPE Regulation PPE Guidelines	☐ EN/prEl	N:		Other:
Article: Annex:	Clause:			
Key words:				
One model and different protecting components				
Question: We have sometimes allowed use of two different steel toecaps, very s and the corrosion in both of them and that was all.	imilar but d	iffer	ent make. We have tested	the model with both toecaps
But now a manufacturer wants to have in a single model the possibility course all possibilities shall be tested, but, is it possible to call it a single		el a	nd non metallic toecaps, mo	etal and textile inserts. Of
Solution:				
When the safety components are from different materials that have dif- models 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 15-09-2019✓ EU PPE Working Group 07-02-2020
Question related to PPE Regulation PPE Guidelines] EN/prEN:
Article: Annex: Cla	ause:
Key words: Sock lining, insole abrasion	
Question:	
The abrasion resistance of the insole must be carried out according to E an inner sock lining covering also the insole that method seems to be method for linings and insocks, is potentially more suitable.	
Solution:	
When footwear has an inner sock lining it is enough to carry out the abra 2011 clause 6.12 and it is unnecessary to carry out the insole abrasion t	

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	Version	Reference	Keywords	Approved by	Approved by	Endorsed by
of RfU PPE-R/				Vertical Group 11	Horizontal Committee	PPE Working Group
11.004	02	EN 364:1992	Length of the test lanyard	21.04.2018	21.04.2018	22.04.2019
11.006	02	211 00 1.1002	EU type examined	21.04.2018	21.04.2018	22.04.2019
			equipment; minor variations, additional testing / verification			
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
<u>11.034</u>	02	EN 353-2 :2002	Fall protection system; special use	21.04.2018	21.04.2018	22.04.2019
<u>11.037</u>	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
<u>11.053</u>	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

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
11.063	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
<u>11.081</u>	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
<u>11.085</u>	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
11.088	02	Any EN on fall arrest if relevant	Rope / Knots, technique, end user, friction knots	14.10.2020	01.10.2021	18.11.2022
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
<u>11.106</u>	02	EN 360:2002	Retractable type fall arrester, retraction function with rotation	07.06.2021	01.10.2021	18.11.2022

Number	Version	Reference	Keywords	Approved by	Approved by	Endorsed by
of RfU			-	Vertical	Horizontal	PPE Working
PPE-R/				Group 11	Committee	Group
<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
11.112	01	EN 795 :2012, TS 16415 :2013	Anchor device, type C, authorized people, lifeline, span	21.04.2018	27.12.2018	29.11.2019
11.113	01	EN 795:2012, TS 16415 :2013	Anchor device, dynamic test, permanent deformation	21.04.2018	27.12.2018	29.11.2019
11.114	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>	02	EN 353-1:2014 +A1:2017	Guided type fall arrester including rigid anchor line; angles of rigid anchor line	21.04.2018	01.10.2021	18.11.2022
11.117	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
11.119	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
11.121	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
11.125	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
11.129	01	EN 353-1:2014 + A1:2017	Guided type fall arrester, closing mechanism	13.06.2019	15.09.2019	14.03.2022
11.130	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 body harness, instructions for use	13.06.2019	15.09.2019	14.03.2022
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

Number	Version	Reference	Keywords	Approved by	Approved by	Endorsed by
of RfU				Vertical	Horizontal	PPE Working
PPE-R/				Group 11	Committee	Group
<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
11.138	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



PPE-R/11.004 Version 2

Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group 11 'Protection against Fa	alls 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.	1.2.1	
Key words:			
Length of the test lanyard			
Question:			
What is the definition of the length of a test lany	yard?		
Solution:			
Define the length as per figure 2 of EN 1497:20	007.		



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 	ıce			
 Change in marking 	g			
Documents to be supplied	d:			
	— 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		
		FG		



PPE-R/11.007 Version 2

^	RECOMMEN	IDATION FO	R USE		
Number of pages: 1			Approval stage :	Approved on :	
			✓ 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:			
	ment; medium variations; verification; re	e-examination			
Question: What are medium variations within EU type examined equipment which require verification by re-checking, visual inspection, re-examination (visual), review?					
 Change in the col 	oe verified by re-examination: our of a strap or a sewing thread addition, a removal or a modification in	ı an accessory-s	support device		

- An addition, a subtraction or modification in a size (harness size or lanyard length)
- Change in length of a lanyard on a retractable type fall arrester

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 specimen of the modified equipment for verification 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

RECOMMENDATION FOR USE				
Number of pages: 1	11200111		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/prEl	N:	☐ Other:
Article:	Annex:	Clause:		
Key words:				
EU type examined equ	uipment; essential variations; specific	or partial tests		
vvnat are essentiai vai	iations within EU type examined equ	iipment wnich require	specific or partial test?	
Solution:				
Examples of essential	changes requiring specific or partial	tests:		
 On a belt, a ch 	ange in the type of carriage guard			
 On a harness, 	a change in the metal buckle (mater	ial, dimension, treatme	ent,)	
 On a harness, 	a change in the dorsal plate			
 On a connector 	r, a change in the anti-corrosion trea	tment		
 On a retractab 	le type fall arrester, a change in the t	termination		
Documents to be supp	olied by the manufacturer :			
 Formal letter fi 	rom the manufacturer describing the	change (s) in the equi	pment and confirming that ther	re is no further modification
 Manufacturers 	technical specification relative to the	e change (drawings, pa	arts list, letter of subcontractor,)
 One or severa 	I specimens of the modified equipme	ent, or one or several s	amples of the modified compo	nent for performing the tests

Conditions of validity:

- Performance of specific tests 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

One specimen of the original equipment for comparison with the modified 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 co 	omponents requiring processing as in shee	t no. 11.008	
 On a harness, a change in the arrangement of straps and/or 	r 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, r	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 identification.	ication		



PPE-R/11.019 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:		
Key words:				
Energy absorber; chair	n test lanyard			
Question:				
How can the influence	of the chain test lanyard on the peak force in	the dynamic	performance test of an energy	absorber be avoided?
	ain test lanyard on the peak force in the dyna ed to the energy absorber and not to the chair			r 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:				
Static testing; stressing	ı rate			
0 "				
Question:				
How can the stressing	rate during static testing be adjusted to avoid	i dynamic em	ect and oversnooting of force c	ontroi equipment?
Solution:				
The stressing rate during	ng static testing shall not be constant or at a did dynamic effects and overshooting of force			shall be reached within a



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/prEN	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	nts?		
Solution:			
The filter characteristics used for dynamic force measurements durin	g 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			
o. Attenuation band50 dB			



PPE-R/11.031 Version 1

Number of pages: 1			Арр	roval stage :	Approved on :
Origin : Vertical Group	11 'Protection against Falls from a Height'		\boxtimes	Vertical Group Horizontal Committee EU PPE Working Group	21.04.2018 27.12.2018 29.11.2019
Question related to	☐ PPE Regulation	☐ EN/prE	N:		Other:
Article:	Annex:	Clause:			
Key words:					
Canyoning; caving					
Question:					
How to perform testing	g of harnesses used in "canyoning" and "cavi	ng" sport?			
Solution:					
Harnesses used in abo	ove described sports have to be tested accor	ding to EN 12	277	"Mountaineering Equipme	nt - Harnesses"



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	☑ PPE Regulation	⊠ 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 worl	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
 device.
- 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 :1992	Other:
Article: Annex: Clau	use: 5.9.2	
Key words:		
Low stretch kernmantel rope - drop machine		
Question: Dynamic performance and number of drops: Which drop machine has to be	pe used (free fall or guided)?	
Solution: VG11 recommends to use the free fall machine.		



PPE-R/11.040 Version 2
Version 2

***	RECOMMENDA	ATION 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 Expert Group	23/11/2022 31/05/2023 31/01/2024
Question related to Requirement 2.4	☑ PPE Regulation:	EN/prEN:	Other:
Article:	Annex:	Clause:	
Key words:			
Date of manufacture,	marking, ageing		
Question:			
	against fall from a height subject to rstandard does not require this?	ageing be marked with the date of r	nanufacture even if
2. What shall be	e the format of the date?		
Solution:			
	if obsolescence date is not marked narked with the date of manufacture	d. Note: all PPE against fall from a he a and/or obsolescence date.	eight subject to ageing
	date's marking should at least inclu out it shall be explained in instructio	de the year and the month. There is n for use.	no required format for



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Version 02

Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group 11		1. 44. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4	
Origin : Vertical Oroup 11		∀ertical Group ✓	07.06.2021
		☒ Horizontal Committee☒ EU PPE Expert Group	01.10.2021 18.11.2022
Question related to PPE Regulation PPE Guidelines	⊠ FN/prF	N: EN 795:2012 - type B	Other:
Article: Annex:	Clause:		
Allio.	Olduso.		
Key words:			
Vacuum, magnetic, anchor device			
Question:			
How to assess anchor devices attached to a structure by vacuum pre	ssure or by	magnetism?	
Solution:			
Anchor devices attached to structure by vacuum pressure or magnet	ism should	be tested to EN 795:2012 as a t	ype B
device. Design shall at least take into account the base material.			
Conditions of use shall at least take into account following parameters	S:		
supporting surface (material, thickness, finish)			
environmental conditions (temperature, humidity, etc.) disaction of loading.			
direction of loadingcleanliness of the surface			
distance from an edge			
uistance nom an eage			



PPE-R/11.042 Version 1

	×	REC	OMMENDATION FO	R USE	
	of pages: 1			Approval stage :	Approved on :
Origin : \	ertical Group	11 'Protection against Falls fror	n 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 353-2:2002	Other:
Article:		Annex:	Clause:		
Key word	ls:				
Guided T	ype Fall Arres	ter - Incorrect attachment and ι	use		
Question	:				
1)	(normally up)	vards). The release function/bu	tton of the fall arrester mus	travel freely along the anchor list be operated by hand. This manustructions for use of such fall a	ay prevent the fall arrest
2)		fety concerns associated with the triple of the included within the manut		rresters for work positioning pu ?	rposes – What kind of
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 0	GTFA having more than 1 methor	od of operation or having a	natural locking position?	
Solution:					
1)		ons for use shall include a warni ing (i.e. they have a safe hand)		n/button must only be operated	when the user is in no
2)	The instruction	ons for use shall confirm whether	er or not the system can be	e used for work positioning purp	oses.
3)) The instructions for use shall indicate the requirements for attachment to a full body harness (e.g. high or low relative to the sternum) and a warning that the intended connection between the user and safety line/rail should not be extended in length (e.g. with an additional connector or lanyard).				
4)	Each natural EN 353-2:20		method of operation shall a	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	21.04.2018 21.04.2018 22.04.2019
Question related to	☑ PPE Regulation	⊠ EN/prE 358:1999	:N: EN 361:2002, EN	Other:
Article:	Annex:	Clause:		
Key words:				
Back support; full body	harness; waist belt; work positioning element	ts		
Question:				
Must a full body harne	ss including work positioning elements have a	waist belt o	r back support?	
Solution:				
There is no need of a	waist belt or back support if the force is applied	d to the user	's body in a way that provides t	he 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	☑ PPE Regulation	⊠ 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	lfety.	



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 21.04.2018 22.04.2019
Question related to PPE Regulation	EN/prEN: EN 353-2:2002	Other:
Article: Annex: Cla	use: 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	specified by the manufacturer and the	e fall arrester)?
2/ Should the device be loaded through the fall arrester attachment eye/la	anyard/connector?	
3/ What is the static strength a guided type fall arrester including a flexible lanyard?	e anchor line shall resist, if it is provide	ed with a connector only, no
Solution:		
1/ Yes – The test should be carried out to provide a strength test of the w manufacturer). If the fall arrester slips on the flexible anchor line during the as described in EN 12841:2006		
2/ Yes - The device should be loaded through the attachment eye/lanyare	d/connector as per normal use	
3/ The guided type fall arrester together with its connector shall withstand accordance with EN 353-2:2002, clause 5.2.2.2, but without a lanyard.	a strength of 15 kN. The testing shall	be carried out in



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Version 02

^	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 PPE Guidelines	☑ 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	erials		
Question:			
Which kinds of load bear are not?	ring 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 requirement	ents apply to the load bearing textile materia	als used in personal protective equipment ag	ainst falls from a height.
Note 1: Mixtures of acce	eptable materials are also acceptable.		
Note 2: Materials that a bearing material(s) are		yarn, polyethylene made of monofilament fil	ores) but mixed with load
Note 3: Other load bear	ing textile materials are not acceptable exce	ept if documented justification can be provide	ed for specific application.
retractable lanyard,)	namic rope, low stretch kernmantel rope, ac	cessory 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	o 11 'Protection against Falls from a Heig	yht'	✓ 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:		
Key words:				
Full body harness: fro	int loops			
Question:				
Who is responsible fo elements e. g. webbir	r using the right connector to form the frong loops or D rings?	ont attachment poi	nt of a full body harness which	comprises two attachment
Solution: The manufacturer is r instructions.	esponsible to specify exactly the type of o	connector e. g. typ	pe / model which should be deta	ailed within the PPE user
If the manufacturer su axis, while attached to	upplies a connector with the harness, the o the harness	connector will be	tested statically to EN 361:2002	2 in the most unfavourable



PPE-R/11.057 Version 2

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	✓ Vertical Group	21.04.2018
	Horizontal Committee	21.04.2018
	⊠ EU PPE Working Group	22.04.2019
Question related to PPE Regulation	SEN/prEN: EN 361:2002	Other:
Article: Annex: C	lause:	
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 attachmen	nt 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

	RECOMMENDATION FOR USE			
Number of pages: 4			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 🛛 P	PE Regulation PPE Guidelines	⊠ EN/prEl	N: EN 360:2002	Other:
Article:	Annex:	Clause:		
Key words:				
Horizontal use; retractable	e type fall arrester			
Question:				
What tests are necessary	for retractable type fall arresters intended	d for horizonta	l use over an edge?	
Solution:				
	1. Preliminary note: The principles for testing relate to the optional test of retractable type fall arresters. It is presumed that the anchor point of the retractable type fall arrester is not situated lower than the standing user.			
2. General requirements The retractable type fall ar	: rester shall comply with the requirements	s in accordanc	e with EN 360:2002.	
3. Additional requiremen	its:			
3.3 Dynamic performance3.4 Dynamic strength in	tal arrangement tal arrangement following optional condition ce in a horizontal arrangement when loaded a horizontal arrangement when loaded over the orizontal arrangement when loaded over	ded over an ed over an edge w	vith an edge radius of 0.5 mm	nm

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.
- 2. 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.

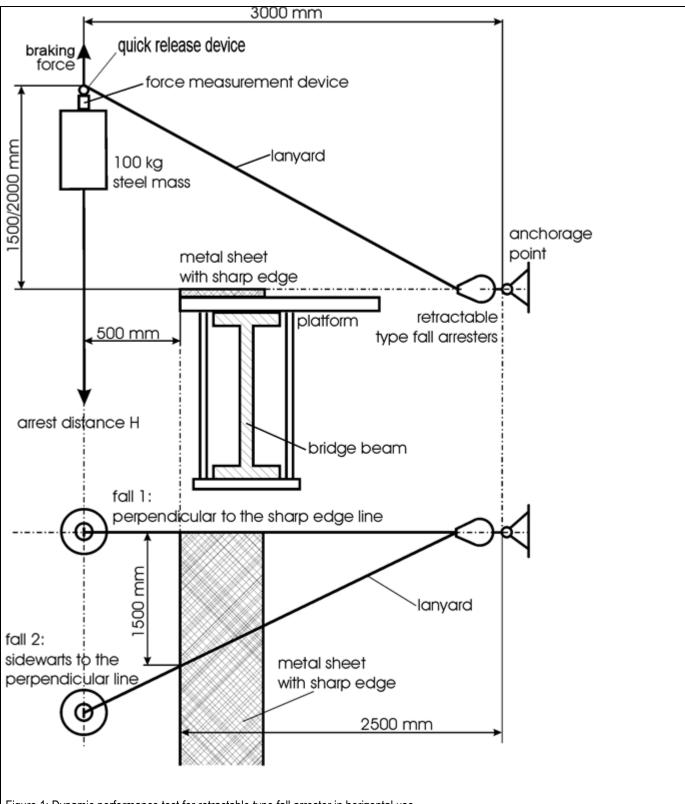


Figure 1: Dynamic performance test for retractable type fall arrester in horizontal use



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 Commit✓ EU PPE Working C	
	N/prEN: EN 353-2 :2002, 55:2002; EN 360:2002	☐ Other:
Article: Annex: C	 :e:	
Key words:		
Testing with higher loads		
Question:		
How shall following PPE tested when the manufacturer claims in the ins	ctions a user weight greater th	nan the standard 100 kg?
Guided type fall arrester including a flexible anchorage line (E	53-2:2002)	
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 stand. Values of standard have to be met.	with standard load value and	with value manufacturer gives.
Note: in absence of specified claim for user weight, test shall be carried	with the 100kg mass	



methods:

CO-ORDINATION OF NOTIFIED BODIES PPE Regulation 2016/425

PPE-R/11.063 Version 2

RECOMMENDATION FOR USE

Update : in red

Number of pages: 2			Approval stage :	Approved on :
Origin : Vertical Group Height'	11 'Protection against Falls from	а	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	23/11/2022 31/05/2023 31/01/2024
Question related to	☑ PPE Regulation	⊠ EN		Other:
Article:	Annex:	Clause:		
Key words:				
Energy absorber - star	tic test – dynamic test			
Question:				
What test method sho	uld be used to carry out test on e	nergy abso	orber including an integral la	nyard?
Solution:				

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)

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

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

Note 1 : Each test shall be performed using a new sample Note 2: requirements apply to both fixed and adjustable lanyard

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 lanyards-system shall sustain the static load. Leg 1 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		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
	⊠ EN/prE EN 353-2:2	N: EN 353-1:2014, 2002	☐ 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 are company to the one that originally supplied and installed the cable an			o 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	<u>2</u>	
Key words:				
Pulley, sheaves, static	strength test			
Question:				
How to test pulleys wit	h more than one sheave when they are not in	tended for in	dividual use?	
Solution: When not intended to	be used individually they shall be tested togeth	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		⊠ EN/prE	N: EN 361:2002,	Other:
Article:	Annex:	Clause: 4.	2	
Key words:				
Synthetic fibre, breakin	g tenacity			
Question:				
	g tenacity of synthetic fibre as 0,6 N/tex?			
now to commit breaking	g terracity of synthetic libre as 0,0 Witex !			
Calution				
Solution: VG11 members require of synthetic fibres as 0.	e confirmation (e.g. certificate of conformity) ir 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

V3: updates in red

Number of pages: 3		Approval stage :	Approved on :
Origin: Vertical Group 11 'Protection	against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	
Question related to ☐ PPE Regu			Other:
Article: Annex:	Clause:		
Key words:			
EN 354, EN 355, horizontal use; lany	ards with energy absorber, <mark>short l</mark>	lanyard, edge test	
Question:			
What tests are necessary for lanyard	s with an energy absorber intende	ed for horizontal use over a	n edge?
Solution:			

1-Remark for forked lanyard: Forked lanyard with one energing

Preliminary remarks:

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 <u>including</u> 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:

- 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 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.

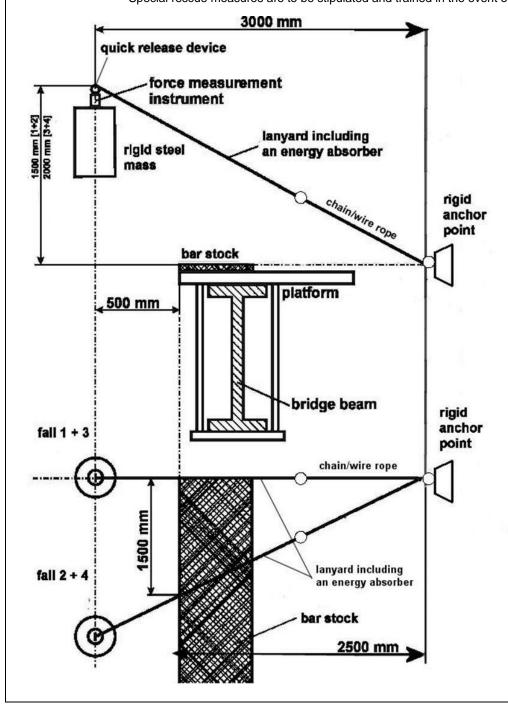
Additional information in the instructions for use:

• 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

$\cap \mathbf{x} \cap$	RECOMMEND	ATION FOR USE	
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 u	use; guided type fall arrester including flexible	e anchor line , edge test	
Question:			
	eary for guided type fall arrester including flexi	ible anchor line intended for horizontal use o	over 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

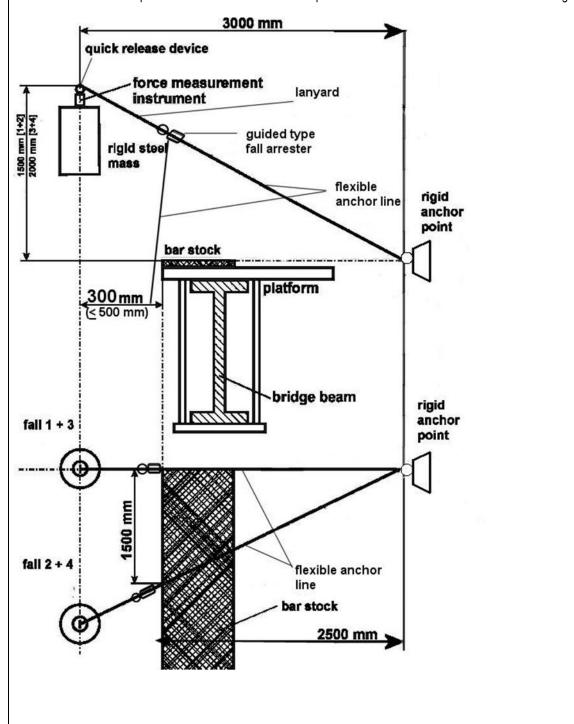
Additional information on marking:

- 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.
 - The anchor point for the flexible anchorage line may not be below the user's stand level (e.g. platform, flat roof).
 - 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

REC	OMN	IEND	OITA	N FOE	R USE

RECOMMENDATION OR 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	:N: 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/1	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/prE	N: EN 355	Other:
Article: Annex:	Clause:		
Key words:			
Samples, test order			
Question:			
Which sample shall be used to carry out the dynamic performance or	n EN 355:20	002?	
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 po	erformance	on the same sample	
A new sample shall be used for preloading test			



Version 02

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Number of pages	s: 1	Approval stage :	Approved on :
Origin : Vertical C	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	⊠ EN/prEN: EN 360:2002	☐ Other:
Article:	Annex:	Clause:	
Key words: Retractable type	fall arrester, fall factor, locking feature		
Question: How to assess re locking feature?	etractable type fall arresters (EN 360 type) claiming	the possibility to go above the device and/	or including a retraction
with EN 360 and The complete le 1- Dynamic perf 2 Requireme L = complete	e fall arresters claiming the possibility to go above the following additional requirement: Ingth of the retractable type fall arrester including continuous commance test (with locked retraction feature if appliant: F<6kN, H < 2L + 1.75 m and H _{max} < 5.75m length of the retractable type fall arrester including	connectors shall be limited to 2.50m icable), the maximum extracted length and connectors.	a fall factor
the locking m Requirement: L = complete 3- Static strengtl applicant) Re	: F<6kN, H´< L + 1.75 m and H _{max} < 3.75m length of the retractable type fall arrester including h test on the lanyard webbing only (a test specimer equirement: 22kN for 3 minutes.	connectors.	and fall factor 2 (to test
instructions for us	se and marking according (clearance below the use	er 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 arrested.	er end termi	nation?	
2/ What is the maximum permissible permanently non retractable ter	mination len	gth 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. energemm.	gy absorber	, handling, loop, integral conne	ctor,) shall not exceed 600



PPE-R/11.088 Version 02

* * * *	DECOMMENT	NATION FOR USE	
Number of pages: 2	RECOMMEND	Approval stage :	Approved on :
Origin: Vertical Group 11			14.10.2020 01.10.2021 18.11.2022
Question related to P	PE Regulation PPE Guidelines	⊠ EN/prEN: any EN on fall arrest if relevant	☐ Other:
Article:	Annex:	Clause:	
Key words:			
Rope / Knots, technique, e	end user, friction knots		
Question:			
Most fall protection syster subsequent training by th		n (such as connecting various components) a	and therefore rely on
However can Notified Bod making a spliced end on a		ues to be implemented by the end user (e.g; o	dressing a specific knot,
Solution:			
Yes; but only if the end us	ser does not impact the construction of th	ne	
product <u>Examples</u>			
be made by the	end user.	ntaineering, caving) that does not impact th	
and under C2/	D production control	l end on a rope) cannot be made by the end u	
		ion hitches, which might need to be adjusted dure and requirements for friction hitches	by the end user, can be
Note: the manufacturer ca harness)	an allow the end user to replace a compo	nent as a spare part (e.g. ventral attachment	using a knot on an arborist
	d in a PPE systems against falls from		
•	n hitches are: prusik, valdotain-tresse, dis fferent possible variations of these knots	stel, michoacan, machard, (e.g. 4-coils or 5-coils), there is no list of allow	ved friction hitches in this
General requirements The manufacturer must de	s fine all intended modes of use and must	refer to EN standards (if applicable).	
	st be finished and ready-to use products v	, ,, ,	
Ì			

2. Testing

The tests should be carried out according to the intended use of the whole system (e.g. EN 358, EN 795, EN 12841 ...). 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).

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

A grab test according to EN 12841:2006 – 4.3.3 (5.5.2) is mandatory.

3. Marking

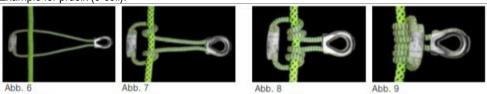
Each load bearing component that might be removable must have a marking, which states the correspondence to the whole system. Example: 'Component name 1' part of 'system name', 'Component name 2' part of 'system name', etc.

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.



PPE-R/11.093 Version 1

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 Working Group	21.04.2018 27.12.2018 29.11.2019
Question related to		⊠ EN/prE	N: EN 341 :2011	☐ Other:
Article:	Annex:	Clause: ar	t 4.4.1/4.4.2	
Key words:				
Descender device, temperature test				
Question:				
How to understand articles 4.4.1 and 4.4.2 of EN 341:2011 as there are some unclear 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.

- I 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

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* * *	BODIES PPE Regulat	tion 2016/425	
~ * ~	RECOMMENDATION	N FOR USE	
Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Grou	ip 11 'Protection against Falls from a		
Height'		✓ Vertical Group	23/11/2022
			31/05/2023
			31/01/2024
Question related to	☐ PPE Regulation ☐	EN/prEN: EN 358:2018, EN 354:2010	Other:
 Article:	Annex: Claus	 se:	
Key words:			
Pole choker, work po	sitioning lanyard		
Question:			
How should pole cho	okers (*) be assessed?		
0.1.4			
Solution:			N 054 0040
	o be assessed as work positioning lanyard tests shall be carried out using a represer	<u> </u>	
diameter)	3,		
Instructions for use s	shall require that the user needs a back-u	p system when using the pole ch	oker devices
(*) Data at at a section		to Landau Harriston	
• •	ble adjustable webbing lanyard designed	to be used for climbing on	
wooden poles Exam	ole of Pole Choker:		
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0	\		
Y	1		
A	₫.		
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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. 2. Length of minimum 1m and maximum 2m 3. Stitched or made of hand knots (e.g. bowline)	act force of (9 \pm 1,5) kN in the fi	rst dynamic test
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
	EN: EN 795:2012, EN 02, EN 360 :2002	☐ Other:
Article: Annex: Clause: A	rt. 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 instruction retractable fall arrester (EN 360) or guided type fall arrester including a flexible		evice can be combined with
Solution: In application of article 7 point i) – iii), the manufacturer shall show to the notifie type C anchor device and each claimed models of EN 360/353-2 PPE.	d body evidences of risk analysi	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 that can 2- Include specific warning about necessary clearance below the user w C anchor device.	• •	



PPE-R/11.098 Version 1

Number of pages: 1	Ар	proval stage :	Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'			21.04.2018 27.12.2018 29.11.2019
Question related to PPE Regulation PPE Guidelines	⊠ EN/prEN: E	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	f lanvard (textile	wire rope)?	
to allow any illimitation of the longer of another devices type 2 made of	i larryara (toxtilo	, •••• ••••	
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.	ure and the user	r 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✓ Horizontal Committee✓ EU PPE Working Group✓ 29.11.2019
	EN/prEN: EN 795:2012,
Article: Annex: Clau	use:
Key words: Anchor device, static strength test, material, durability	
Question: Following EN 795:2012 and TS 16415:2013 (articles 5) static strength test with any load bearing element or component made from plastics?	t methods, which static load shall be applied 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 str min	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 Group 11 'Protection against Falls from a Height	t' ⊠ 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 362:2005, EN 12278:2007, EN 795:2012, EN 12275:2013, prEN 15567-1	☐ Other:		
Article: Annex:	Clause:			
Key words:				
Ropes courses, wire rope, Tyrolean, pulley, shuttle				
Question:				
How to assess shuttles that are designed for use on wire rope for Rope Courses?				
Solution:				
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				

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:

Note2: a shuttle can include a pulley

- -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

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



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/prEl	N: EN 341 :2011	☐ Other:
Article: Annex:	Clause: arti	cle 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			
For class B: the descender device shall resist a descent energy test o			
For class C: the descender device shall resist a descent energy test of	f 0,5 10 ⁶ J		



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Version 02

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 11		07.06.2021 01.10.2021 18.11.2022
Question related to ☐ PPE Regulation ☐ PPE Guidelines ☐ EN/p	EN: EN 360 :2002	☐ Other:
Article: Annex: Clause:		
Key words: Retractable type fall arrester, retraction function with rotation		
Question:		
How shall the retraction function with rotation be assessed?		
Solution:		
The retractable type fall arrester shall be tested according to art. 4.1.1 and 5.3.5 of prEN 360 (TC160/WG2 doc N770): Requirement The retractable lanyard(s) shall fully retract. Test method 5.3.5.1 Suspend the 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. 5.3.5.2 Extract (300 ± 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		



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	⊠ 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	h 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:			
Carry out the dynamic te	st according to EN 795 using a 100 kg test	mass conne	cted 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.				
	connecting element: a wire rope lanyard (ea igh which a load is applied, ensuring an equ			2 anchor points), and
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 individual	y.



PPE-R/11.109 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
	☑ EN/prEN: EN 795:2012, S 16415:2013	Other:
Article: Annex: C	lause:	
Key words: Anchor device, type C, requirement , low value		
Question: When testing a EN 795-TS16415 type C, what are load and deflection v	values requirements when low values are	e measured?
Solution: Following requirements apply for force and deflection:		
1- Force measurement If the load at the extremity is less than 3 kN then the requirement of +/-	20% does not apply	
2- Deflection measurement If the deflection on the span is less than 250 mm then the requirement of	of +/- 20% does not apply	



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 ✓ 21.04.2018 ✓ 27.12.2018 ✓ 29.11.2019
Question related to PPE Regulation PPE Guidelines	⊠ EN/prEN: EN795:2012, ☐ Other: TS16415:2013
Article: Annex:	Clause:
Key words: Anchor device, type C, energy absorber	
Question: How to test the performance of a Type C system that has only one er	nergy 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 incorpanchor point at the end of the longest span that meets with the shorter and loading) don't apply.	porates energy absorbing elements at only one end: "locate the mobile est span" but requirements of article 4.4.3.3 (calculation for deflection
Test2: as described in EN 795 art. 5.5.3.2.2.1 for other type C: "positi Requirements of article 4.4.3.3 apply.	on 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 ✓ 27.12.2018 ✓ 29.11.2019
	⊠ 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 be And if so, do Type C have to be tested with all types of post/fixing elements.	
2- If the post/fixing element is removable from the type C shall it be te	sted as Type A?
Solution:	
Two dynamic tests have to be carried out:	
1- Yes, all extreme combinations of type C + post/fixing element that a (example of combination that don't need to be tested: for a same desitype C).	
The specification of all post/fixing elements, including design, size and manufacturer and listed in the report	d 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	e 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
Question related to PPE Regulation PPE Guidelines] EN/prEN: EN 795 :2012, S 16415 :2013	Other:
Article: Annex: Cla	ause:	
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.	um authorized number of users on the li	feline



PPE-R/11.113	
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
	/prEN: EN 795:2012, 415 :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 lowered height of fall while it can lead to permanent deformation in the anchor devices. How to avoid unexpected permanent deformation that could occur on deformass?		· ·
Solution: Test shall not be carried out on an anchor device that has been permanently or 200kg as in TS16415).	deformed before the test by the te	st mass suspension (100kg
Components that could deform can be locked or replaced by a rigid element		
Note: to avoid insufficient preloading of the test lanyard, stitched test lanyard	can be used (see VG11 Recommo	endation for use 11.095)



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Version 3

	RECOMMENDA	HON FOR USE	
Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Grou	up 11	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	07.06.2021 01.10.2021 18.11.2022
Question related to		☐ EN/prEN:	☐ Other:
Article:	Annex:	Clause:	
Key words: load sharing device,	rigging plates, use for work, industry, mountaineer	ing,	
Question:			
As there is no applicable EN standard for these devices, how to assess load sharing devices (e.g., rigging plates) used by a person for fall protection for industry or mountaineering?			
Solution:			
Use UIAA 130:2021			



PPE-R/11.115 Version 1

RECOMMENDATION FOR 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 Working Group	21.04.2018 27.12.2018 p 29.11.2019
Question	n related to 🛛 PPE Regulation 🗌 PPE Guidelines	☐ EN/prEN:	☐ Other:
Article:	Annex:	Clause:	
Key wor			
Clamps,	rescue, evacuation, lifting, lowering		
Question How sha and eva	all clamps that are claimed to be used in conjunction with de	vices for the rescue or evacuation lifting a	and lowering process be tested
Solution Require			
1.	General: The function test, static strength test and dynamic test has integrated lanyard of an energy absorber, lanyard of a retrimanufacturer		
2.	Construction: Construction of the rescue / evacuation clamp has to be construction.	onform with clauses 4.1.1, 4.1.2, 4.1.4 an	d 4.1.5 of the EN 567:2013
3.	Function		

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



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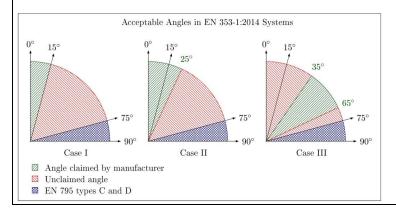
Version 2

RECOMMENDATION FOR USE

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Gro	up 11		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	21.04.2018 01.10.2021 18.11.2022
Question related to		⊠ EN/prE 1:2014+A	EN: EN 353- 1:2017	☐ Other:
Article:	Annex:	Clause:		
Key words:				
Guided type fall arre	ster including rigid anchor line; angles of rigid a	nchor line		
Question:				
	ces when the manufacturer claims the use of its alues (+15° in forward and sideward direction)	• • • • • • • • • • • • • • • • • • • •	0 0	or line with higher angles

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)
 - 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
- 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 shall be tested in the same way (tests, risk analysis, practical tests) 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	☑ 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	y immerse the device in water?	
Preliminary note: By immersing automatic descender devices in water (instead of sp	praying) these devices will normally fail this te	st
Solution: For automatic descender devices the wet and cold condition test of descenders should not be conditioned according to the first 2 sent		ccount, automatic
Manufacturer's instructions and Information must be clear stating t	that use in wet and cold conditions is not allow	red with these devices.
EN 341 shall not marked on the product nor in the instructions, unl	less the device satisfies EN 341:2011 art. 5.4.3	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:	
Key words:		
Descender devices for rescue; textile rope lines		
0#		
Question:	ovice (type 1) he generable even if it does	not conform to the required
Can a textile rope line used for EN 341:2011 automatic descender de 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 a	all other requirement of EN 341:2011.	
3- EN 341 cannot be marked on the PPE nor on the instructio	ns	



PPE-R/11.119 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	21.06.2018 27.12.2018 29.11.2019
Question related to		⊠ EN/prE 2014+A1/2	N: EN 353-1: 2017	Other:
Article:	Annex:	Clause:		
Key words: Guided type fall arre	ester including rigid anchor line; Number of users	simultaneo	usly	
Question:				
•	ed type fall arresters including a rigid anchor line on simultaneously on the rigid anchor line?	(made of w	ire rope or of rail), when the ma	nufacturer claims the use by
Solution:			Note: GTFA = gui	ded 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



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		
0 "		
Question:	viana af tham?	
For function Tests, shall H _{LD} and H _{AD} requirement be met both or only	y one of them?	
Solution:		
H _{LD} and H _{AD} requirement shall be met both		



PPE-R/11.122 Version 1

Number of pages: 1		Appr	roval stage :	Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'		\boxtimes I	Vertical Group Horizontal Committee EU PPE Working Group	21.06.2018 27.12.2018 29.11.2019
] EN/prEl 31 :2002	N: EN	N 360 :2002, EN	Other:
Article: Annex: Cl	ause:			
Key words:				
Retractable fall arrester, full body harness				
Question:				
How to assess a retractable type fall arrester which is attached to a full by typical attachment point (e.g. a D-ring)?	oody harr	ness I	by a specific adapter whic	h 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 ar	nd torso d	lumm	ny instead of rigid mass	
Instruction for use should include compatible products and add sufficien	t informa	tion o	on how to connect the devi	ce.



PPE-R/11.123 Version 1

Origin : Vertical Group 11 'Protection against Falls from a Height' Vertical Group 21.04.2018 27.12.2018 27.12.2018 29.11.2019	lumber of pages: 1	Approval stage :	Approved on :
Article: Annex: Clause: Key words: Retractable fall arrester, descender device for rescue , rescue lifting device Question: How to test EN 360 including descending EN 341 and/or lifting EN 1496 functions? Solution:	rigin : Vertical Group 11 'Protection against Falls from a Height'		27.12.2018
Key words: Retractable fall arrester, descender device for rescue , rescue lifting device Question: How to test EN 360 including descending EN 341 and/or lifting EN 1496 functions? Solution:			Other:
Retractable fall arrester, descender device for rescue, rescue lifting device Question: How to test EN 360 including descending EN 341 and/or lifting EN 1496 functions? Solution:	rticle: Annex: Clause:		
How to test EN 360 including descending EN 341 and/or lifting EN 1496 functions? Solution:			
		ions?	
		nd/or EN 1496	



PPE-R/11.124

Version 05

	RECOMME	NDATION FO	R USE	
Number of pages: 2	·		Approval stage :	Approved on :
Origin : Vertical Grou	p 11 'Protection against Falls from a Heigh	ıt'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	02.12.2021 30.04.2022 31.08.2023
Question related to		⊠ EN/prE	N: EN 360:2002	☐ Other:
Article:	Annex:	Clause:		
Key words: Retractable type fall a	arresters, twin, horizontal use			
Question: How shall retractable body harness be asse	type fall arresters ("RTFA") with 2 retracta essed?	ble lanyards (two	o devices connected with an a	dapter) attached to the full

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.

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.

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Version 3

* * *	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 07.06.2021 01.10.2021 18.11.2022 		1.10.2021		
Question related to S	PPE Regulation PPE Guidelines	· ·	N: EN 892:2012 EN 1891:1998		Other:	
Article:	Annex:	Clause:		•		•
Key words:	-	1				
Dynamic mountaineering	rope, low stretch kernmantel rope, markir	ng				
Question:						
Are markings made of bar kernmantel ropes?	nds mandatory for EN 892:2012+A1:2016	6 Dynamic mou	untaineering ropes and EN 1	891:19	98 Low stretch	
• .	durable markings at both ends. / shall comply EN 892:2012+A1:2016 (ar	t. 6) and EN 18	391:1998 (art. 6.2)			

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Version 2

RECOMMENDATION FOR USE

	RECUIVINE	NUAI	ION FOI	K USE				
Number of pages: 1				Approval stage :			Approved on :	
Origin : Vertical Group 11		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	9	01	.06.2021 .10.2021 .11.2022			
Question related to ⊠ PPE F	Regulation PPE Guidelines		⊠ EN/prE	:N: EN 361 :2002			Other:	
Article:	Annex:	(Clause:					
Key words:								
Full body harness, ergonomic tests								
Question:	Question:							
How to assess ergonomic requirement on full body harness?								
1								

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



PPE-R/11.129 Version 1

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	RECOMMEND	DATION 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 mechanister 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 to	ructions and ir closes comple	nformation. etely after refitting the guided	type fall arrester in or on the



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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 Expert Group	13.06.2019 15.09.2019 14.03.2022
Question related to		⊠ EN/prE	N: EN 358:2018	☐ Other:
Article:	Annex:	Clause:		
Key words:				
Dynamic strength te	st, integrated lanyard			
Question:				
	st according to Art. 5.7.3.2 of EN 358:2018 (d vith full length of the lanyard minus 300mm?	lynamic streng	yth test on Waist belt with inte	grated lanyard) as it could be
Solution: The dynamic streng purpose of the test b	yth test of a waist belt with integrated lanyard by the manufacturer	can be carrie	d out with a specific sample o	f 1,3m long, provided for the



PPE-R/11.131 Version 1

RECOMMENDATION FOR 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 Expert Group	13.06.2019 15.09.2019 14.03.2022
Question related to 🖂	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, har	ness, sit harness		
		s EN 361:2002, EN 813:2008 or EN 12277+ sted according to EN 358:2018 clauses 4.1.	
Solution: Yes			



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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	13.06.2019 15.09.2019 14.03.2022
Question related to		⊠ EN/prEN: EN 361:2002	☐ Other: 11.062
Article:	Annex:	Clause:	
Key words:			
Maximum rated load	d, full body harness, instructions for use		
Question:			
Can instructions for	use of a Full Body Harness claim a maximum	n rated load more than 100kg?	
	s for use shall require only to use energy absorbing element shall be tested according to	orbing elements compatible with this maximun o RfU 11.062 or relevant EN standard.	n rated load.



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RECOMMENDATION FOR 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 Expert Group	13.06.2019 15.09.2019 14.03.2022
Question related to 🖂	PPE Regulation		:N: EN 892:2012 EN 1891:1998	☐ Other:
Article:	Annex:	Clause:		
Key words:				
Dynamic mountaineering	rope, low stretch kernmantel rope, constru	ction		
Question:				
Should each construction EN 1891:1998 be tested	n (braiding,core yarns,) of dynamic mount ?	aineering ro	pes EN 892:2012+A1:2016 or lo	ow stretch kernmantel ropes
Solution: Yes				



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Version 03

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	02/12/2021 30/04/2022 31/08/2023	
Question related to	□ PPE Regulation □ PPE Guidelines	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	κ, industry, mountaineering				
Question:					
How to assess swiv	el used by a person as a fall protection for indus	stry 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.



CO-ORDINATION OF NOTIFIED BODIES

PPE-R/	11	.1	36
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Version 1

* 1	PPE Regulation 2016/425				
^ *	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	e 0.	7.10.2019 1.10.2021 3.11.2022
	Regulation PPE Guidelines	⊠ EN/prE	EN: EN 353-1 :2014		Other:
Article: 4.1.2.5	Annex:	Clause:			
Key words: Guided type fall arrester , conn	ecting element				
Question:	014 states "The connecting element ('GTFA') connected to a connector	,		·	

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

PP	F-	R/	11	1	37

Version 1

* *	PPE Regu	lation 2016	/425			
* * *	RECOMMENI	DATION FO	R USE			
Number of pages: 1			Approval stage :		Approved on :	
Origin : Vertical Group 11			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Grou) (14.10.2020 01.10.2021 18.11.2022	
Question related to 🛛 PPE	Regulation PPE Guidelines	⊠ EN/pri :2017	EN: EN 353-1 :2014+A1	[Other:	
Article: : 5.3.4.3 and Fig. 11	Annex:	Clause:		I		<u> </u>
11, which depicts the test an Question:	text in clause 5.3.4.3 or the diagram	ontact with the		fall-ar	rester but in Figure	
Note: where an energy-absor unlocked position the rigid tes	.4.3 takes precedence over the diagramment is relatively short the test mass shall be in contact with any page position of the guided type fall arrest	est shall be car art of the guide	ried out so that: "with the gued type fall arrester, including	ided ty		



PPE-R/11.138

Version 1

Number o	f 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	5:			
Individual	safety systems, rope courses			
Question:				
How to int	erpret the various editorials errors noted in EN 17109:2020	?		
Solution:				
Solution.				
•	Article 4.3.4 refers to 5.3.5 method but should only refer to	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 4.4 shall refer to 5.3.5.4			
•	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 positio	ns 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. Ar	ticle 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 stre duration). VG11 decision: Apply the load for (3+0.1/-0) mir	-	e applied (or if no	
•	Article 4.2 / 5.2 does not define which diameter the test sha			
	out. Proposal: minimum			
•	Articles 6c and 7a: should refer to EN 17109:2020 and not	2019		
•	Annex B, Table B1: Number 14 should be EN 12277:2015	+A1:2018-1	2	



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Version 1

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 11	✓ Vertical Group	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	conforming to EN 1891:1998-A, shall be	
tested. EN 341:2011 allows in Art. 4.2.2.2 other textile rope lines that	ın 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?		
d. Should there be differences if they are used in EN 12841:	2006-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 12841:200 production control. Production has to guarantee that rope p acceptable performance for EN 12841:2006 and/or EN 34 	arameters stay inside tolerances, which g	
 b. Complete PPE conforming to EN 12841:2006 and/or EN 34 it on the rope itself 		s 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) id	entification(s) (model) to be used with the	device



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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/prEN: : EN 12841-B:2006,	☐ Other:
	EN 567:2013, EN 361:2002,	
	EN 358:2018, EN 813:2008,	
	EN 12277:2015+A1 :2018	
Article: Annex:	Clause:	
Key words:		
Rope clamp/Rope adjustment device used in harnesses		
Question: How to assess harnesses including a rope clamp/rope adjustment designed only for rope clamp/rope adjustment device?	device or a specific attachment point (e.g. s	small size stitched loop)

Solution:

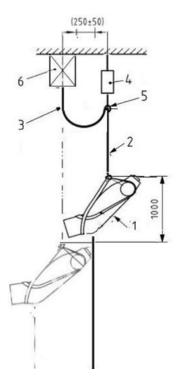
Harnesses including a rope clamp/rope adjustment device shall fulfil following requirements beyond PPE Regulation:

- 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

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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 12841:2006 h	ave contradic	tory requirements			
Note: this position is confirmed by TC160/WG3 (document TC160/WG3/N579)					

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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 Fal	lls 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/prEľ	N: EN 12275:2013	Other:	
Article:	Annex:	Clause:			
Key words: EN 12275, marking,	classes B and T				
Question: Note: EN 12275:2013 clause 6 b) states that "the connector class letter in accordance with clause 3 surrounded by a circle, for class H, class K and class X connectors; class B and T connectors shall not be marked with B or T surrounded by a circle unless they are fitted with a gate-locking device" Question: Should the class B or T connectors, without gate-locking device, to be marked with B or T not surrounded by a circle?					
Solution:					
	s B and T not fitted with a ga 55 from CEN/TC136/WG5)	ate-locking device	shall not be marked with the	ne class letter.	

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PPE-R/11.14
Version 1

RECOMMENDATION FOR USE						
Number of pages: 1			Approval stage :	Approved on :		
Origin : Vertical Grou	ip 11 'Protection against Falls	Š	☑ Vertical Group☑ Horizontal Committee☑ EU PPE Expert Group	23/11/2022 31/05/2023 31/01/2024		
Question related to	☑ PPE Regulation	⊠ EN/prEN	l: EN 17109:2020	Other:		
Article:	Annex:	Clause:				
Key words: ISS, MCD, connecto	r					
Question: Shall connectors conforming to EN 12275:2013 or EN 362:2004 must in addition conform to EN 17109 in order to be used in an ISS (Individual Safety System, as defined in EN 17109:2020 art. 3.2)?						
Solution:						
certified according to	h are used as MCD (Mobile C EN 12275:2013 or EN 362:2 t N1194 from CEN/TC136/W	2004 can be used				