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

Vertica	I Group	1	- status ir	۱ (October	2023
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<u>Vertical Group 2</u> - status in October 2023

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

<u>Vertical Group 4</u> - status in October 2023

<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

<u>Vertical Group 11</u> - status in October 2023

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

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

Regulation (EU) 2016/425

Number	Version	Reference	Keywords	Approved by	Approved by	Endorsed by
of RfU				Vertical	Horizontal	PPE Expert
PPE-R/				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
<u>01.006</u>	01	Various	Kerbstone anvil	21/04/18	21/04/18	29/11/19
<u>01.007</u>	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
01.029	01	EN 812:2012	Marking	21/04/18	21/04/18	29/11/19
01.030	01	EN 12492:2012	Ventilation	21/04/18	21/04/18	29/11/19
01.031	01	EN1384:2012	Thickness measurement, Area of protection	21/04/18	21/04/18	29/11/19
01.032	01	EN 1384:2012	Test sequence, sample restoration	21/04/18	21/04/18	29/11/19
01.033	01	EN 14052:2012 + A1:2012	Resistance to penetration, helmet test support	21/04/18	21/04/18	29/11/19
<u>01.036</u>	01	EN 13484:2012	Extent of coverage	21/04/18	21/04/18	29/11/19
01.037	01	EN 1385:2012	Coverage	21/04/18	21/04/18	29/11/19
01.038	01	EN 1385:2012	Retention system effectiveness	21/04/18	21/04/18	29/11/19
01.039	01	EN 397:2012	Helmet shell, Materials, Marking	21/04/18	21/04/18	29/11/19
01.040	01	Other	Equestrian helmets, CE marking	09/06/21	01/10/21	18/11/22
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
<u>01.046</u>	01	EN 50365:2002	Marking durability, marking legibility, marking location	24/05/18	15/09/19	14/03/22
01.047	01	EN16471:2014 & EN16473:2014	Flame resistance, Testing	24/05/18	23/09/20	14/03/22
01.049	01		Industrial safety helmets, increased ventilation	21/04/18	23/09/20	14/03/22
01.050	01	EN 1077:2007	Helmets for Alpine Skiers and Snowboarders with integrated speakers	21/04/18	23/09/20	14/03/22
01.051	01	EN 397:2012 + A1:2012	Headband, Adjustment	21/04/18	23/09/20	30/06/23
01.052	01	EN 397:2012 + A1:2012	Lateral deformation, test plates, positioning	21/04/18	23/09/20	30/06/23
01.053	01	EN 397:2012 + A1:2012	Headband, variants	21/04/18	23/09/20	30/06/23
01.056	01	EN16471:2014 & EN16473:2014	Coverage, materials	24/05/18	23/09/20	14/03/22
01.059	01	EN 397:2012 + A1:2012	Winter liners	09/06/21	01/10/21	18/11/22
01.060	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
01.063	01	EN 812:2012	Test configuration	19/09/19	01/10/21	18/11/22
01.064	01		Electric bicycles, electric scooters, electric skateboards	25/06/21	30/04/22	31/08/23
01.065	01	EN 443:2008	Visible damage	19/09/19	01/10/21	18/11/22
01.066	01	EN 397:2012 + A1:2012	Ventilation 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

Number of RfU	Version	Reference	Keywords	Approved by Vertical	Approved by Horizontal	Endorsed by PPE Expert
PPE-R/				Group 1	Committee	Group
01.068	01	EN 50365:2002	Visual inspection, metal parts	19/09/19	01/10/21	18/11/22
01.069	01	EN 14052:2012 + A1:2012	Pre-conditioning, delay	19/09/19	01/10/21	18/11/22
<u>01.070</u>	01	EN 397:2012 + A1:2012	Crown area	09/06/21	01/10/21	18/11/22
<u>01.071</u>	01	EN 397:2012+ A1:2012	Chin-strap anchorage	09/06/21	01/10/21	18/11/22
01.072	01	EN 443:2008	Horizontal field of vision	09/06/21	30/04/22	31/08/23



PPE-R/01.00
Version 1

	RECOMMENDA	TION 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	:N: EN 397:1995 (+A1) & 112	☐ Other:
Article:	Annex:	Clause: 6.	11.2	
Key words:				
Industrial helmet, lateral	deformation test, test procedure			
Question:				
In the case of helmets w load is not applied direct	hich include localized projections from the sl tly to the projections?	hell, e.g. rive	ets, is it permissible to use "brid	ging elements" so that the
location of the loading p	esults in the lateral deformation test of one in lates on the sides of the helmets turned out t n the shell, notwithstanding any localized pro ents.	o be the rea	ason for the discrepancy. Where	eas UTAC located the
Solution:				
No.				
	hich the loading plates are located on the hel The formulation of chapter 6.11.2 in EN 397			the relevant one for the
				l



PPE-R/01.002
Version 1

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Number of pages: 1			App	roval 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: 4.7	7		
Key words: Industrial bump caps, ver	atilation				
industrial bump caps, ver	Illiation				
Question:					
Products may be designed	ed with 'cut-outs' that extend upwards from t pearance of a baseball cap or those design				
Should such cut-out featu	ures be considered as holes for ventilation p	ourposes?			
Solution:					
No.					



PPE-R/0)1	.003
Version	1	

Number of pages: 2	2		Approval stage :	Approved on :
Origin : Vertical Gro	oup 1		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	21.04.2018 23.09.2020 30.06.2023
Question related to	☐ PPE Regulation ☐ PPE Guidelines	⊠ EN/prE	N: Various	Other:
Article:	Annex:	Clause:		
Key words:				
Shock absorption, f	alling headform, alignment, procedure			
Question:				
What is the correct	positioning procedure of the helmeted headform	for falling he	eadform shock absorption testir	ıg?
The following stand	ards are affected:			
EN 966 : 2012 + A1	:2012		e 7.2.3	200 (5 2)
EN 1077 : 2007 EN 1078 : 2012 + A	1:2012	ciaus claus	e 5.5 (refers to EN 13087-2 : 20 e 5.4	100 Cl. 5.3)
EN 1080 : 2013		claus	··	
EN 1384 : 2017			e 5.7.1 (refers to EN13087-2 : 2	2012 cl. 5.3)
EN 1385 : 2012	(LA1) 8 EN 12007 2 : 2012	claus claus		
EN 13484 : 2012	(+A1) & EN 13087-2 : 2012	claus		
EN 13781 : 2012		claus		

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

\uparrow	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 ac	ctivities, peak, deflection		
Question:			
For the purpose of testing	g peak deflection, what should be considere	ed a peak, because the definitions given are	not clear?
This sheet relates to the	following standards:		
EN 1384:1996 (+A1) & E	N 1384 : 2012 clauses 3.10, 5.5 & 6.8		
Solution:			
above. Depending upon t	eyes may be provided by an extension forw the construction of the helmet, such an exte e wearer from, the helmet.		
not made from the same	nose construction incorporates a shell fitted material as the protective padding (that is, is the protective padding, it is considered no	it is made from the same material of the she	
	nose construction does not incorporate a sh s considered not to be a peak if it is integral		
ı			
1			



PPE-R/0	1.006
Version	1

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



PPE-R/01.007
Version 1

	RECUIVINENDA	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 an I3087 series) how should the Test Laboratory			
Solution:				
	ot fully described or clarified in the appropriate ecific one, the Test Laboratory should refer to			
	ifference between the procedure/equipment in t standard shall take precedent.	n the produc	ct standard and that in the test n	nethod standard, the
	ncouraged to highlight individual situations in tion for Use sheet can be raised for each occ		mation is missing from the produ	uct 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	se: 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, $% \left(1\right) =\left(1\right) \left(1$	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	r tests in order that the model he con-	sidered acceptable
The single sample must satisfy the requirements for both the front and rea	r tests in order that the model be con-	sidered acceptable.



PPE-R/01.009 Version 1

	NECOMMENDA	HON I ON OOL		
Number of pages: 1		Approval stage :	Approved on :	
Origin : Vertical Group 1		✓ Vertical Group✓ Horizontal Cor✓ EU PPE Work	mmittee 21.04.2018	
Question related to	☐ PPE Regulation	☑ EN/prEN: EN 443 : 2008	☐ Other:	
Article:	Annex:	Clause: 5.4, 5.5		
Key words:				
Shock absorption, Resist	tance to penetration			
Question:				
	ted or supplied with face protectors that are in 'non-integral protective functions", how shou tance to penetration"?			
Solution:				
The face protector shall be	be placed in its "in-use" position.			



PPE-R/01.011 Version 1

	RECOMMENDA	<u>ATION FOR</u>	USE	
Number of pages: 1		А	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	⊠ EN/prEN:	: EN397:2012+A1:2012	Other:
Article:	Annex:	Clause: 5.1.4	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 according to the code of the c	hin are considered the chinstrap and failur cepted.	re shall not occ	ur for these parts. Failure of	buckles or similar 'closure'
If separate buckles or dev failure shall occur at this o	rices are provided for the purpose of creati device.	ing a reusable o	disconnection that is intended	to release under load,
If such devices are not pro	ovided, failure shall occur for parts that do	not constitute t	the chinstrap passing under th	ne chin (refer above).
There shall be no breakag	ge of strap material.			
Definition				
Rationale:			mann of attaching one but	
chinstrap anchorage. Pro	nes that the helmet shell shall be fitted with oduct innovation since the conception of EN here the attachment begins can be unclear usable disconnection point for the chinstrap	N397 has resul r due to the var	ted in an increasingly diverse ried designs of products, some	range of products. Where



PPE-R/01.012 Version 1

	RECOMINEND	ATION FO	K USE	
Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	1			21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	EN: Various	☐ Other:
Article:	Annex:	Clause:		
Key words:				
Secondary impacts				
Question:				
Shall the results for sec	condary impacts, i.e. after bounce, be consid	lered when m	naking assessment?	
Solution:				
No.				
Values obtained during	secondary impacts, i.e. after bounce, shall be	oe disregarde	ed.	
values estamen daning	osseriaary impasto, not alter seames, enam-	oo alologalad		



PPE-R/01.013	
Version 1	

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 1		21.04.2018
		21.04.2018
	⊠ EU PPE Working Group	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?	s not sit on the jawbone, is it essential that	the fastening device is
Solution:		
No.		
The primary purpose of this requirement is to ensure that the device of	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



PPE-R/01.014

Version 02

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

~ * *	RECO	OMMENDATION FOR USE	
Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group	1	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prEN: EN 1077:2007	Other:
Article:	Annex:	Clause: 5.4	
Key words:			
Test area			
Question:			
How should the specific	ed test area be marked on the he	elmet?	
helmet. In order to perform test	s, the test area has to be reprodu	protection) that defines the impact test area on the head uced on the helmet. Depending upon interpretation of h the helmet, and obviously to different test results.	
Solution:			
The test area should be	e projected horizontally from the h	headform to the outer helmet surface.	
side corners (points C,	D, E) directed perpendicular to the	to the helmet with lines laying on horizontal planes, par ne vertical longitudinal plane, while for front and rear po on the helmet shall be connected by lines, using for exa	ints (points A' and B) along



1 – Lines helmet outer shell 2 – Lines test area horizontal projection



PPE-R/01.01	6
Version 1	

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



PPE-R/01.017	7
Version 1	

Number of pages: 1	11233		Approval stage :	Approved on :
Origin : Vertical Group	1			
ongin . vortical Group	•		∀ Vertical Group	21.04.2018
			☒ Horizontal Committee☒ EU PPE Working Group	21.04.2018 29.11.2019
Overting welst 11:	DDE Damilettere			
Question related to	PPE Regulation		:N: EN 397:1995 & 2012	Other:
Article:	Annex:	Clause: 5.	2.1	
Key words:	100			
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."				
Solution:	4000			
Yes, because testing at	-10°C is a mandatory requirement.			



PPE-R/01.	019
Version 1	

Numb	er of pages: 1		-	Approval stage :	Approved on :
	: Vertical Group	 1		11	L
Origin	. Vortical Croup			∀ Vertical Group	21.04.2018
				☒ Horizontal Committee☒ EU PPE Working Group	21.04.2018 29.11.2019
Quest	ion related to	☐ PPE Regulation	⊠ EN/prE	EN: EN 443:2008	Other:
Article	: :	Annex:	Clause: 4.	11 Flame resistance	
Key w	ords:				
Helme	ets for Fire Fightin	g; Flame resistance			
Quest	ion:				
		te the tests described in EN 443:2008 "Helme by the tests described in EN 136:1998 clause			
		cording to clause 6 of the standard with "EN44		o.5.2 during an Approval and E	O-Certification nowever
		·			
Solution	on:				
No.					
The te	ests in EN 443:20	08 clauses 4.11 and 5.13 are completely diffe	erent from th	ne tests in EN 136:1998 clauses	7.6.3 and 8.5.2 with regard
-	time of impact,				
_	•	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/prE A1:2012	N: EN 397:2012 +	☐ Other:
Article:	Annex:	Clause: 5.2	2.5	
Key words:				
Molten metal splash, a	ssessment			
Question:				
Shall assessment be li	mited to the 50mm radius circle onto which the	e liquid meta	al is poured, or shall it apply to o	ther areas of the helmet?
0.1.5.				
Solution: Assessment shall apply gutter.	y to the shell of the helmet. With reference to	the definitio	n of clause 3.4, 'brim', the shell	does not include a brim or
Reason: The 50mm radius circle	e is just a target point for pouring of the metal.			



PPE-R/01	.022
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: Various (see below)	Other:
Article: Annex:	Clause: Various (see below)	
Key words:		
Test position, Penetration testing, Molten metal testing		
Question:		
Certain standards make reference to the "top" of the helmet/bump cap cap is not defined, so what is the "top"?	when defining certain test positions. The	top of the helmet/bump
Solution: The top of the helmet/bump cap is that point on the outside surface of of the headform, should the helmet/bump cap be fitted normally to a highest point of the helmet/bump cap when fitted to the test headform.	eadform of appropriate size. This may, or	
This applies to the following standards/clauses:		
EN 397:2012 + A1:2012 clauses 6.7.3 & 6.12.3		
EN 812:2012 clause 6.6.3		
EN 12492:2012 clause 5.6.1		
EN 14052:2012 +A1:2012 clause 6.11.3		



PPE-R/01	.023
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 12492:2012	☐ Other:
Article: Annex:	Clause: 5.6	
Key words:		
Penetration testing, sample restraint		
Question:		
How much restraint shall be used to hold a sample in position for testi	ing?	
Solution:		
As little restraint as possible shall be used, but enough to ensure that reasonably significant amount of restraint.	the test is performed correctly. In some ca	ases, this may be a
Rationale:		
For some designs of helmet, rotating the helmet upon the test block in the test block being able to pass between the harness so that the she product was fitted on to a person or a full test headform. This was ag should be used to prevent such occurrence during the test.	Il rests on the test block. This situation wo	ould not occur when such a



PPE-R/01	.024
Version 1	

Number of pages: 1	Approval stage : Approved on :
Origin: Vertical Group 1	 ✓ Vertical Group ✓ Horizontal Committee ✓ EU PPE Working Group ✓ 21.04.2018 ✓ 29.11.2019
] EN/prEN: EN 397:2012 + ☐ Other: 1:2012 and EN 12492:2012
Article: Annex: C	ause:
Key words:	
Dual-marking	
Question:	
Is it possible to approve a product dual-marked for compliance with EN3	397:2012 + 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 require provided with two chin-straps, one to satisfy the retention system require requirements of EN12492. In such a case, the chinstraps must be very user instructions shall state clearly how the helmet is to be configured in	ements of EN397 and the other to satisfy the retention system clearly labelled as to the applicability for each standard and the



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	on ⊠ EN/prE A1:2012	N: EN 397:2012 +	☐ Other:
Article: Annex:	Clause: 6.		
Key words:			
Molten metal test, orientation			
Question:			
In what orientation should the helmet and	headform be placed when the test is p	erformed?	
Solution:			
The headform should be vertical and the h	nelmet fitted in a normal wearing position	on	



PPE-R/01	.026
Version 1	

Approval stage :	Approved on :
✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
EN/prEN: EN 397:2012 + 2012	Other:
use: 4.9	
nard covers/multiple layers and where ernal layer (shell)?	the area of the aperture(s) in
ese be in the cover/external layer or in	the internal layer.
1	Vertical Group Horizontal Committee EU PPE Working Group EN/prEN: EN 397:2012 + 2012 use: 4.9 mard covers/multiple layers and where ernal layer (shell)?



PPE-R/0	1.027
Version	1

	RECUMINIENDA	THUN FUR	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 443:2008	Other:
Article:	Annex:	Clause: 5.4.	1	
Key words:				
Shock absorption, headf	forms			
Question:				
For shock absorption test headforms that comply of	sting of area 1a, should the headforms compl only with EN 960:1994?	ly with the rec	uirements of EN 960:2006, or	is it acceptable to use
Solution:				
The headforms should c	omply with EN960:2006.			
Rationale:				
EN 443:2008 clause 5.4.1 requires testing to be performed in accordance with EN 13087-2:2000. EN 13087-2:2000 makes dated reference to EN 960:1994. According to referencing rules, it could be assumed that the headforms should therefore comply with EN 960:1994.				
However, EN 443:2008	itself makes dated reference to EN 960:2006	S.		
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	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: (
Key words:		
Retention system strength, headforms		
Question:		
For retention system strength testing, should the headforms comply with headforms that comply only with EN 960:1994?	th the requirements of EN 960:2006, or is	it acceptable to use
Solution:		
The headforms should comply with EN960:2006.		
Rationale: EN 443:2008 clause 5.8 requires testing to be performed in accordance to EN 960:1994. According to referencing rules, it could be assumed to		
However, EN 443:2008 itself makes dated reference to EN 960:2006.	inat the neadlorms should therefore comp	ny With Liv 300.1334.
Therefore, the interpretation has been made that testing should be per headform sizes complying with EN 960:2006.	formed in accordance with EN 13087-5:2	000, but using equivalent



PPE-R/01.029
Version 1

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 1		
Origin: Vertical Group 1	✓ Vertical Group	21.04.2018
	✓ Horizontal Committee✓ EU PPE Expert Group	21.04.2018 29.11.2019
Question related to PPE Regulation 🖂 E	EN/prEN: EN 812:2012	Other:
	ise: 7.2.3 d)	
	,	
Key words:		
Marking		
Question:		
In clause 7.2.3 d), is the reference to clause 7.1 correct?		
Solution:		
No, reference should be to clause 7.2.2. instead		
Rationale:		
Clause 7.2.3 d) requires the significance of the markings under clause 7.1 as 'number of the European Standard', and requiring the significance of su		
EN 397:2012 + A1:2012 clause 7.2.3 d) includes a very similar requirement must be explained.	nt, but instead it is the optional markin	gs for which the significance
It has been interpreted that the requirement in EN 812 was intended to be	of a similar 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 measurement, Area of protection				
Question:				
For measurement of the made?	nickness of protective padding in the area of protective	rotection but	outside of the test area, where	should this measurement
Solution:				
The measurement should be made 12mm up from the lower edge of zone 2 as illustrated below (see also Figure 1 of EN1384) and shall then be compared with the minimum thickness measured within zone 1.				
2006 1	M			

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

Number of pages: 1		Approval stage	Approved on :	
Origin : Vertical Group 1		✓ Vertical Gro✓ Horizontal C✓ EU PPE Wo	committee 21.04.2018	
Question related to	☐ PPE Regulation	☑ EN/prEN: EN 1384:2012	Other:	
Article:	Annex:	Clause: 6.2		
Key words:				
Test sequence, sample	restoration			
Question: Is it acceptable to restor	e samples following reversible dama	ge before performing the next test in	the test sequence?	
Solution: No, samples should be t	ested without restoration.			
Reversible damage can occur during testing which could influence the outcome of tests later in the test sequence, e.g. detachment of ventilation covers might have a detrimental effect on penetration resistance. Some standards specify a sequence of testing just to minimise the number of samples required for a test programme. However, it was interpreted in this case that the sequence of testing was not just intended to reduce sample quantities, therefore samples should be left unchanged following each test before moving on to the next test in the sequence.				



PPE-R/01	.033
Version 1	

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



PPE-R/01	.036
Version 1	

	KECOMINIENDA	11101110	, J	OL .	
Number of pages: 1			App	oroval 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 13484:2012	Other:
Article:	Annex:	Clause: Fig	gure	2	
Key words:					
Extent of coverage					
Question:					
Is the dimension of 25,5r	mm between points D & E correct?				
Solution:					
No, the drawing includes	an error.				
The 25,5mm dimension should be drawn between the vertical transverse plane and point E.					
Rationale: EN 13484:2012 figure 2	places point E at 25.5mm behind point D, bu	ut also behin	ıd the	e vertical transverse plane.	
214 10 10 1.20 12 liguilo 2 piacos polític a t. 20.011111 polític B., pat alos política troi voltada tranovoldo piano.					
This is in contradiction, because 25,5mm behind point D would be in front of the vertical transverse plane.					
EN 1077:2007 figure 1 is very similar and shows point E positioned 25,5 mm behind the vertical transverse plane.					



PPE-R/01	.037
Version 1	

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	1		.,	
9			✓ 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				
Ooverage				
Question:				
Should point C be the r	mid-point of A-Z when measured over the surfa	ace of the h	eadform, or when projected from	m the side?
0.1.11				
Solution: Point C should be the r	nid-noint of Δ-7 when measured over the surf	ace of the h	eadform	
Point C should be the mid-point of A-Z when measured over the surface of the headform.				



PPE-R/01	.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	d from?	
Solution:		
The 600mm should be measured upwards from the reference plane.		
,		
Rationale:		
Mail 6	Landa and Carlotte Landa.	
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 th		er standards that include this



PPE-R/01.039
Version 1

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



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Version 01

RECOMMENDATION FOR USE

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 1			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	09.06.2021 01.10.2021 18.11.2022
Question related to PPE	Regulation PPE Guidelines	☐ EN/prE	N:	Other:
Article:	Annex:	Clause:		
Key words: Equestrian helmet	s, CE marking			
Question:				
In the absence of a harmonize	d standard for equestrian helmets, wl	hat approach	should be used for certification?	
Solution:				
Helmets should be tested and	d assessed to the requirements of EN	11384:2017 m	odified as given below.	
Extent of coverage When tested in accordance was protection. Each size of helm	vith clause 5.2 of EN1384:2017, helm net shall be tested.	ets shall cove	r at least the area of	

Field of vision

When tested in accordance with EN 13087-6:2012, there shall be no occultation in the field of vision bounded by angles as follows:

- horizontally 105°; measured from points K1 and K2
- downwards 45°.

One sample of each size shall be tested. Samples shall be tested in the state 'as-received'.

User information

In addition to the information required by clause 6.2 of EN1384:2017, warning shall be included as follows:

"Whilst helmets reduce the likelihood of injury, in certain circumstances injury cannot be prevented. In particular, helmets are not designed to protect the head in the event of crushing by a horse."

Marking

With the differences in testing detailed in this sheet, the helmet should not also be marked "EN1384:2017" unless the helmet has additionally been tested to the specific requirements of EN1384:2017.

To aid users in identifying products that have satisfied the requirements of this Recommendation for Use sheet, helmets satisfying these requirements may be marked "VG1 01.040 2021-06".



PPE-R/01.04
Version 1

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Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 1	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	21.04.2018 15.09.2019 14.03.2022
	EN/prEN: EN 1077: 2007 / EN 8+ A1:2012 / EN 1385: 2012	Other:
Article: Annex: Clau	use: See below	
Key words:		
Artificial ageing, ultraviolet irradiation		
Question:		
The following standards/clauses specify the use of a 125W xenon-filled qu	uartz lamp for 48h at a distance of 250	lmm:
EN1077:20017 clause 5.5.5		
EN1078:2012+A1 clause 5.4.2.3		
EN1385:2012 clause 7.5.4		
The 125W xenon-filled quartz lamp is no longer sold on the market (since	2012).	
What is an appropriate alternative?		
Solution: A 150W lamp used for 40h at a distance of 250mm.		
A 15000 lamp used for 4011 at a distance of 250111111.		



PPE-R/01.0	42
Version 1	

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



PPE-R/01	.043
Version 1	

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 1	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 15.09.2019 14.03.2022
Question related to PPE Regulation PPE Guidelines	☑ EN/prEN: EN 397:2012 + A1	Other:
Article: Annex:	Clause: Various	
Key words:		
Visor position, Testing		
Question: EN397 helmets may be fitted with integral visors that can slide inside	the helmet hetween the shall and the herr	0000
EN397 Heilitets may be filted with integral visors that can slide inside	the nemet, between the shell and the nam	1655.
Should the visor be stowed or deployed during testing?		
Solution:		
Testing should be performed as follows:		
Internal vertical distance - deployed		
Internal vertical clearance - if the visor does not seal off the air space and subtract the thickness of the visor. If the visor seals off the area,		est with the visor deployed
Shock absorption - test with the visor in BOTH positions, but not 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 viso	or does not affect testing	



PPE-R/01	.045
Version 1	

Number of pages: 1		Approval stage :	Approved on :
, •		Approvar stage .	Approved on .
Origin : Vertical Group 1		✓ Vertical Group✓ Horizontal Committee	24.05.2018 15.09.2019
			14.03.2022
Question related to PPE Regulation PPE Guidelines	⊠ EN/prE	N: EN 397:2012 + A1	Other:
Article: Annex:	Clause: 4.4	4	
Key words:			
Internal vertical clearance, Internal vertical distance, Air supplied responses	oirators		
Question:			
Powered or compressed air supplied respiratory protective devices (F	RPD) incorp	orating 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	ernal Vertica	al 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 in relates to passive ventilation and cooling. Powered or compressed at	r RPD are o	designed to prevent the ingress	of ambient air, but do
instead provide either filtered air or compressed air which is delivered		irer, therefore providing active v	rentilation and cooling.
Therefore, the test can be considered as not applicable to such produ	ucts.		
Internal vertical distance - VG1 considers that whilst the requirement purpose of the measurement.	is applicabl	e to such products, the duct co	uld be removed for the



PPE-R/0	1.046
Version 1	

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



6.

CO-ORDINATION OF NOTIFIED BODIES PPE Regulation 2016/425

PPE-R/01.047 Version 1

Approved on :

RECOMMENDATION FOR USE

Approval stage :

Origi	n : Vertical Group 1			
Origin	n . vertical Group 1		✓ Vertical Group✓ Horizontal Committee	24.05.2018 23.09.2020
				14.03.2022
Ques	stion related to PPE Regulation PPE Guidelines	⊠ EN/prE EN16473:2	N: EN16471:2014 & 2014	Other:
Articl	e: Annex:	Clause: 5.6	6/5.7	
Key	words:			
Flam	e resistance, Testing			
Ques	stion:			
How	shall the flame resistance test be performed?			
Solut	tion:			
<u> </u>				
The f	following points shall be considered:			
1.	All externally exposed materials of the shell shall be tested.			
2.	In the case of the retention system, testing can include up to the	ne edge of a	ny relevant component.	
3.	The test is an assessment of material and design, so wheneve accessories too.	•	·	ted. This applies to
4.	Following 50°C pre-conditioning, the samples shall be allowed	to return to	ambient condition before testi	ng.
5.	The standard specifies requirements of the helmet shell, retenting the standard does not specify what is to be done for integral putested as per the requirements for accessories and non-integral putested.	rotective de	vices, such as integral faceshi	

Status: October 2023

When testing the shell, the instruction not to test within 5mm of an edge is deemed to include edges created by ventilation features.

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PPE-R/01.049
Version 1

RECOMMENDATION TO	N USL	
Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 1	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	21.04.2018 23.09.2020 14.03.2022
Question related to PPE Regulation PPE Guidelines EN/prE	N:	Other:
Article: Annex: Clause:		
Key words:		
Industrial safety helmets, increased ventilation		
Question:		
Industrial helmets which have ventilation greater than that permitted by EN397:2 sectors (e.g. forestry) to avoid dangers associated with the accumulation of heat		
Can such products be certified?		
Solution:		
Such products can be certified using a suitable technical specification.		
The failure of such products to meet the requirement of EN397 clause 4.9 requirement of EN397	es that the product marking sha	ll not include EN397.



PPE-R/01	.050
Version 1	

Number of pages: 1	Approval stage :	Approved on :	
Origin : Vertical Group 1	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	21.04.2018 23.09.2020 14.03.2022	
Question related to PPE Regulation PPE Guidelines EN/prE	N: EN 1077:2007	Other:	
Article: Annex: Clause: 4.2	2.1		
Key words: Helmets for Alpine Skiers and Snowboarders with integrated speakers			
Question: EN1077 clause 4,2,1 includes a note that "Helmets shouldnot significantly interfere with the ability of the user to hear". In the case of helmets with integrated speakers, if used inappropriately there is potential for the volume of the sound to be such that ability of the user to hear properly may be significantly affected, e.g. nearing snow compacting vehicles. How should this potential hazard be addressed when certifying such products?			
Solution: The manufacturer should include appropriate warnings in the information to be supplied to the wearer. Such warnings should include reference to the possibility of hearing damage through prolonged excessive volume levels, and the potential reduction in awareness of surroundings.			



PPE-R/01.05
Version 1

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

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PPE-R/01.052
Version 1

RECOMMENDATION I	JI UUL	
Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 1	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	21.04.2018 23.09.2020 30.06.2023
Question related to PPE Regulation PPE Guidelines EN/pr	EN: EN397:2012+A1:2012	☐ Other:
Article: Annex: Clause: 5	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 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: EN397:2012+A1:2012	Other:
Article: Annex: Clause:		
Key words:		
Headband, variants		
Question:		
In the case of helmet models differing only by way of the headband adjustment necessary to carry out full testing on the helmet with each adjustment mechanis		het wheel type, is it
Solution:		-9.1. L. ((
No. The helmet should be tested using the standard sample quantities, with the headband adjustment variants	samples split as evenly as pos	Sidie detween the different

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PPE-R/01.056
Version 1

×	RECOMMENDA	TION FO	R 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 F	PPE Regulation PPE Guidelines	⊠ EN/prE EN16473:2	N: EN16471:2014 & 2014	Other:
Article:	Annex:	Clause: 5.	1	
Key words:				
Coverage, materials				
Question:				
Must the required coverage	ge of the area situated above plane AA' be	provided by	the shell material (only)?	
Solution:				
No, coverage may be pro	vided by other materials, so long as the par	rt providing t	he coverage was integral to the	e helmet.



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Version 01

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	RECOMMENDA	ATION FU	K USE	
Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 1			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	09.06.2021 01.10.2021 18.11.2022
Question related to 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	ed for a winter liner that is specified by the	manufacture	r as an accessory to the helmet	?
Solution:				
Yes, depending upon the	performance claims of the helmet or the d	lesign of the	iner.	
Performance of the produreviewed with the accessor	ct against certain optional requirements, s ory in place.	such as molte	n metal protection or electrical	properties, should be
	should also be given to the release force or create an additional hazard.	of any Velcro	in the context of the requireme	nt for chinstrap anchorages,
Further test may be requi	red depending upon the particular winter li	iner being co	nsidered.	



PPE-R/01.060
Version 1

Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group 1		11	rr
Ongin : Vertical Group 1		□ Vertical Group	24.05.2018
		☒ Horizontal Committee☒ EU PPE Expert Group	23.09.2020
		, ,	30.06.2023
Question related to PPE Regulation	PPE Guidelines 🖂 EN/prE	EN: 16473:2014	☐ Other:
A -E-1			
Article: Annex:	Clause:		
Key words:			
Ventilation			
Question:			
Are ventilation holes permitted?			
Solution:			
Yes, but the design of such ventilation feature	as should be such that coverage of	the area AA' is provided and inc	grees of chemicals noured
over the top of the helmet is prevented.	es should be such that coverage of	the area AA is provided and in	gress of chemicals poured
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PPE-R/01.062

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/pr	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.	suitability of the risk assessment	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 o		
An immediate risk is the masking of ambient noise meaning the user cannot he At this time, in relation to wind noise there is no method specified for determining cycling whilst not wearing a helmet		
cycling whilst not wearing a heimet		



PPE-R/01.063

Version 01

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Number of pages: 1		Approval stage :	Approved on :			
Origin : Vertical Group 1		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group				
Question related to	PPE Regulation PPE Guidelines	☑ EN/prEN: EN812:2012	Other:			
Article:	Annex:	Clause: 6.5.3				
Key words: Test configura	ation					
Question: For clause 6.5.3 c), in what orientation should the headform be for the test on the rear of the bump cap?						
Solution: The headform should be	in the orientation of rear upwards.					
If the headform is set in	headforms have different shapes. the front-upwards orientation, this would c a 'normal-wearing' configuration.	reate a situation where the helmet is teste	ed in a 'reverse-wearing'			



PPE-R/01.064

Version 01

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



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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 PPE Guidelines	EN/prEN: EN443:2008	☐ Other:			
Article: Annex: Cla	ause: 4.13.1				
Key words: Visible damage					
Question:					
Is colour change indication of visible damage?					
Solution:					
If the colour change is not associated with softening of the material, the colour change is associated with softening of the material, the colour chan					



PPE-R/01.066

Version 01

	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	PE Regulation PPE Guidelines	⊠ EN/prE A1:2012	N: EN397:2012 +	☐ Other:	
Article:	Annex:	Clause: 6.0	6.3a and 6.7.3a		
Key words: Ventilation					
Question:					
How should the headband	be adjusted to ensure "(minimal) clearance	"?			
Solution:					
The headband should not	be loose, but should be adjusted so that the	e headband	does not significantly influence t	the test result.	



PPE-R/01.067

Version 01

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Number of pages: 1		Approval stage :	Approved on :		
Origin : Horizontal Commi	ttee	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	19.09.2019 01.10.2021 18.11.2022		
Question related to P	PE Regulation PPE Guidelines	☑ EN/prEN: EN50365:2002	Other:		
Article:	Annex:	Clause: 5.1			
Key words: Specification					
Question:					
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 published later than EN50365. 2. The scope of EN14052 is closely aligned with that of EN397. The performance of products tested to EN14052 exceeds those of products tested to EN397.					



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Version 01

	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 P	PE Regulation PPE Guidelines	⊠ EN/prE	N: EN50365:2002	☐ Other:	
Article:	Annex:	Clause: 6.2	2.1		
Key words: Visual inspecti	ion, metal parts				
Question:					
May such products include metal parts, even if those parts are not exposed?					
Solution:					
	5.3 is considered incorrect and instead sho parts" is taken to apply to all materials of the		ne meaning of the text under 5.2	2 "Insulating helmets shall	



PPE-R/01.069

Version 01

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Number of pages: 1		Approval stage :	Approved on :		
Origin : Vertical Group 1		✓ Vertical Grot✓ Horizontal C✓ EU PPE Exp	ommittee 01.10.2021		
Question related to	PPE Regulation	⊠ EN/prEN: EN 14052:201 A1:2012	2 +		
Article:	Annex:	Clause: 5.2.3 / 6.6			
Key words: Pre-condition	ing, delay				
Question:					
The period between removal of the test specimen from conditioning and performing of the retention system release test is undefined. What delay is reasonable?					
Solution:					
The process should be continuous with minimal delay before the test is performed.					



PPE-R/01.070

Version 01

RECOMMEN	IDATION FOR USE	
Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 1	☑ Vertical Group☑ Horizontal Commit☑ EU PPE Expert Gr	
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 hel		(as defined in EN960:2006, 2.12)



PPE-R/01.071

Version 01

		RECOMMENT	<u>DATION FO</u>	K USE	
Number of pages: 1				Approval stage :	Approved on :
Origin : Vertical Gro	oup 1			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	09.06.2021 01.10.2021 18.11.2022
Question related to		PPE Regulation	⊠ EN/prE A1:2012	EN: EN 397:2012 +	☐ Other:
Article:		Annex:	Clause: 5.	1.4, 6.9	
Key words:					
Chin-strap anchorag	je				
Question:					
		include more than two chinstrap anchora sed the artificial jaw?	ges. At which	stage in the test shall failure of	the anchorages(s) be
<u> </u>					
Solution:					
		ntil the risk of strangulation has been rem round the wearer's neck.	loved. Normall	y this will be when anchorages	have failed so as to prevent
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PPE-R/01.072

Version 01

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Number of pages: 1	RECOMMEND	DATION FO	Approval stage :	Approved on :
Origin : Vertical Group 1			The prover stage.	ripprovod 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 fie	eld of vision			
Question: From which points should	ld field of vison in the horizontal directions	be assessed?	,	
Solution:				
The horizontal field of vis	sion should be assessed from points L1 ar	nd L2 only.		
Rationale				
443:2008 clause 5.16 st	4 specifies requirements for horizontal fiel ates that testing shall be performed in accrizontal field of vision extending from point	ordance with I		
EN 13087-6:2012 clause should be disregarded.	e 5.4 clearly states that horizontal field of v	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 by	Approved by	Endorsed by
of RfU				Vertical	Horizontal	PPE Expert
PPE-R/				Group 2	Committee	Group
02.003	01	All standards	Variations, conformity	21.04.2018	21.04.2018	29.11.2019
02.015	01	Standards	Test panel, total inward	21.04.2018	21.04.2018	29.11.2019
		including IL/TIL	leakage testing (TIL),			
		tests	inward leakage testing (IL)			
02.018	01	EN 149:2001	Modified PPE	21.04.2018	21.04.2018	29.11.2019
02.027	01	EN 136:1998	Full face mask, flammability, head harness	21.04.2018	21.04.2018	29.11.2019
02.036	01	EN 250:2014	Respiratory Protective equipments, Open-circuit self-contained compressed air diving apparatus (SCUBA), PPE Components	21.04.2018	21.04.2018	29.11.2019
02.043	01	EN 137:2006	Respiratory Protective Equipments, flame engulfment test, bulky devices	21.04.2018	21.04.2018	29.11.2019
02.044	01	EN 13794:2002 EN 13274-2:2001	Respiratory Protective Equipments, practical performance tests	21.04.2018	21.04.2018	29.11.2019
<u>02.046</u>	01	EN 13794:2002	Self-contained closed- circuit breathing apparatus for escape (SCCBA); Carbon-dioxide (CO2) content	21.04.2018	21.04.2018	29.11.2019
02.047	01	EN 12941:1998/A2:20 08	Powered helmet/hood, filter connection	21.04.2018	21.04.2018	29.11.2019
02.048	01	All standards	Equipment standard, test standard	21.04.2018	21.04.2018	29.11.2019
02.049	01		Children, EN testing, EU certification	21.04.2018	21.04.2018	29.11.2019
02.051	01	EN 140:1998	Valves, replacement	21.04.2018	21.04.2018	29.11.2019
02.054	01	All standards	Total Inward Leakage, talking passage	21.04.2018	21.04.2018	29.11.2019
02.055	01	EN 14387:2004/A1:20 08	Marking, filter packaging	21.04.2018	21.04.2018	29.11.2019
02.058	01	All standards	Reporting, Test results	21.04.2018	21.04.2018	29.11.2019
02.059	01	EN 137:2006	Resistance to temperature	21.04.2018	21.04.2018	29.11.2019
02.060	01	EN 137:2006	Temperature performance	21.04.2018	21.04.2018	29.11.2019
02.061	01	EN 149:2001/A1:2009 EN 1827:1999/A1:200 9	Choice of standard	21.04.2018	21.04.2018	29.11.2019
02.062	01	EN 143:2001/A1:2006	Filter, clogging, penetration test	21.04.2018	21.04.2018	29.11.2019
02.063	01	EN 14387:2008	Carbon Monoxide Filter Marking	21.04.2018	21.04.2018	29.11.2019
02.073	01	EN 14594:2018	Compressed air supply	08.08.2019	15.09.2019	14.03.2022

			tube, Resistance to			
			kinking			
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



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	rs.	
How many tests should be performed?		
Solution:		
Perform as many tests as needed to verify the conformity of all eleverify 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

	I COMMENDA		1 00L	
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, to	tal inward leakage testing (TIL), inward lea	kage testing	(IL)	
Question:				
For (total) inward leakage	e testing the EN standards of RPD typically several sizes, should a test house select t			een tested?
Solution:				
In the case of an RPD be are tested for inward leak	ing submitted for type examination in more age.	than one siz	ze then the test panel should be	arranged so that all sizes
Sufficient specimens shall	ll be provided to enable a total of 10 IL / TIL	L tests to be	performed.	
It may not be possible to	test all sizes of RPD.			



PPE-R/02.018 Version 1

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 2		∨ Vertical Group	21.04.2018	
				21.04.2018
			⊠ EU PPE Working Group	29.11.2019
Question related to	PPE Regulation	⊠ EN/prE	N: EN 149:2001	Other:
Article:	Annex:	Clause:		
Key words: Modified P	DE			
Key words. Wodilled F	r C			
Question:				
	filtering facepiece (EN 149:2001) is modified			ed panel (fewer tests
subjects) for total inwa	rd leakage testing be used to assess complia	nce of the m	odified product?	
Solution:				
No, it is not possible to performance.	reduce the number of tests because the add	itional exhala	ation valve has a noticeable influ	uence on the expected
•	alve is added to a certified filtering half mask	(EN 149:200	1) the product is considered as	a new model.



PPE-R/02.027 Version 1

number	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		•	
Q5	If a product satisfies the post-flammability leak tightness te	est, even with	n mechanical damage (which m	ay 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

	REC	OMINENDATION FO	N UUL			
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 Protective equipments, Open-circuit self-contained compressed air diving apparatus (SCUBA), PPE Components						
Question:						
Q1: Can a diving regulator, as a SCUBA sub-assembly consisting of a pressure reducer, a medium pressure hose and a demand valve, be considered as an interchangeable component of a PPE in the meaning of Art. 3 §1.b of the PPE regulation?						
Q2: Provided that, in most cases, a pressure reducer, a medium pressure hose or a demand valve of a diving regulator can be disassembled without using special tools and can apparently be replaced with other similar devices, can they be considered as interchangeable components of a PPE in the meaning of Art. 3 §1.b of the PPE regulation?						
Solution:						
A1: YES. A diving regulator can be mounted on a SCUBA and removed from it directly by the user with its hands. A diving regulator is specifically designed and manufactured to be interchanged with other similar products on a SCUBA. It will consequently bear one EC marking and it will be provided with its user's manual.						
A2: NO. Even if a pressure reducer, a medium pressure hose or a demand valve can be disassembled easily and without using any special tool, they are not generally designed and manufactured to be disassembled by the user.						
In fact the calibration of a diving regulator is performed at factory level exclusively on the assembled device.						
If a pressure reducer, a medium pressure hose or a demand valve come alone on the market they will be accompanied by an information leaflet from the manufacturer stating at least the following:						
 a) a clear warning that the product is a spare part of a specified model or models, properly certified and CE marked, of diving regulator. The information leaflet will give clear reference to the user's manual of the model to which the spare part is applicable. 						
	mponents of a diving regulator are performed and the need for any s		by the user, the manufacturer	shall provide clear guidance		



PPE-R/02.04	13
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	N: EN 137:2006	Other:				
Article: Annex: Clause:						
Key words: Respiratory Protective Equipments, flame engulfment test, bulky dev	rices					
Question: EN 137:2006, method 7.4.1.3 figure 3 specifies the distance between the burner plates. How should the test been carried out for large devices, where the space between the burner plates and the nearest point of the device becomes smaller than 50 mm?						
Solution: Adjust the burner plate(s) position(s) so that the minimum distance between the nearest point of the device and the burner plate(s) becomes 50 mm. This shall be achieved without changing the manikin's position which shall remain in the centre of the original configuration of the burner plates.						



PPE-R/02.044 Version 1

	RECOMMENDA	THON FU	NUSL	
Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 2			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: EN 13794:2002 EN 13274-2:2001	Other:
Article:	Annex:	Clause:		
Key words: Respiratory	Protective Equipments, practical performanc	ce tests		
Question:				
EN 13794:2002 refers to	wrong activities in the test method standard	d EN 13274-	2:2001.	
What are the correct refe	erences?			
Solution:				
Replace in clause 7.16.2	2.2 of EN 13794:2002 the numbers 16, 20, 1	7, 18 by 7, 9	9, 13, 8.	
	2.3 of EN 13794:2002 the number 16 by 7.	-		
Replace in clause 7.16.3	3 of EN 13794:2002 the number 15 by 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/prE	N: EN 13794:2002	Other:		
Article:	Annex:	Clause:				
Key words: Self-containe	ed closed-circuit breathing apparatus for e	escape (SCCB	A); Carbon-dioxide (CO2) conte	nt		
Question:						
	Why shall the requirement in EN 13794:2002, clause 6.19.3, "After the rated working duration and up to a breathing resistance of 35 mbar the CO2 content shall not exceed 3.0 percent by volume", apply for devices with a rated duration of less/equal 15 minutes only?					
Solution:						
Test as if a new paragrap	ph would be inserted after the first senten	ice in clause 6.	.19.2, 2nd paragraph so that the	wording		
	duration and up to a breathing resistance contained closed-circuit breathing appara			3.0 percent by volume"		
Perform the tests in accordance with clause 7.10.1 of the standard.						
Explanatory statement :						
	Since SCCBA normally don't include a warning device which allows the user to notice that the rated duration is exceeded, the only indication for the exhaustion of oxygen is a high inhalation resistance.					
Due to the PPE Regulation Annex II, clause 1.2.1 "Absence of inherent risks and other nuisance factors" the "PPE must be designed and manufactured so as not to create risks or other nuisance factors under foreseeable conditions of use".				PE must be designed and		
The usage of a SCCBA as long as it supports breathing, regardless of its rated working duration, is a foreseeable condition of use if the wearer is in an escape situation. An exceedance of the 3 percent by volume limit of inhaled CO2 is a risk for the user, however.						



PPE-R/02.047
Version 1

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 2	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	lmet/hood, filter connection			
Question:				
and that the system is d	8 requires that a hood/helmet without integresigned in such a way that it shall not be poly" also exclude a design where a connection	ossible to con	nect a filter directly to the hood	helmet. Does the
Solution:				
The breathing hose is co	onsidered as an extension of the hood/helmee 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✓ 29.11.2019
Question related to PPE Regulation	⊠ EN/prEN: All standards
Article: Annex:	Clause:
Key words: Equipment standard, test standard	
Question:	
When test methods differ between device and test standards, which	one has to be used?
Solution:	
The test method which is required by the device standard has to app	
If the test description in the device standard is misleading/imprecise/	/incomplete the test standard could give clarification.



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 Description	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.	ration of the requirements of children.	



PPE-R/02.05
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 140:1998	Other:
Article:	Annex:	Clause: 6.1	12.1	
Key words: Valves, rep	olacement			
Question:				
Must valve assemblies	be able to be replaced as required by clause	6.12.1?		
(The wording of clause	s 6.9 and 6.12.1 seem incompatible in the cas	se of integra	l components of inhalation and	exhalation valves.)
Solution:				
No. If any components	s of valve assemblies are not intended by the r	manufacture	r to be replaced, that is accepta	able.
Reason: EN 136:1998 has corresponding requirements in clause 7.10 and clause 7.15.1, but includes additional words in clause 7.15.1 when compared to EN 140:1998 clause 6.12.1 which make the requirements compatible. This additional wording is underlined below: "Valve assemblies shall be such that they can be readily maintained and <u>if intended by the manufacturer</u> correctly replaced."				
EN 140:1998 clause 6.12.1 should be read as if including the additional words.				



PPE-R/02.054 Version 1

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



PPE-R/02.05	0
Version 1	

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	2		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prEN	: EN 14387:2004/A1:2008	Other:
Article:	Annex:	Clause: 8.3		
Key words: Marking, file	ter packaging			
Question:				
	he filter package shall be marked at least v		ng information:"	
Upon which part of the	filter package should the markings be give	en?		
Solution:				
The marking should be	applied to the smallest commercially avail	able package.		
It is accepted that the s	smallest commercially available package is	not always the	e most immediate packaging.	
Reason:				
Other standards that in packaging.	clude similar requirements, e.g. EN 143:20	000 clause 9.4,	refer to marking of the smallest	commercially available



PPE-R/02.058 Version 1

Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group 2		✓ Vertical Group	21.04.2018
			21.04.2018
		⊠ EU PPE Working Group	29.11.2019
Question related to PPE Regulation	⊠ EN/prE	N: All Standards	Other:
Article: Annex:	Clause:		
Key words: Reporting, Test results			
Question:			
Is it necessary to report measurement values in addition to report	orting the assessr	ment for each clause?	
	•		
Solution:			
Yes.			
The values used to determine the assessment should be repor-	ted.		



PPE-R/02.059 Version 1

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 2	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to PPE Regulation	☑ EN/prEN: EN 137:2006	☐ Other:
Article: Annex: C	Clause: 7.4.1.1 & 7.4.1.2	
Key words: Resistance to temperature		
Question:		
In the case of apparatus incorporating wrapped composite pressure ve apparatus, or just to the cylinder(s)?	ssels, 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

A	RECOMMENDA	TION 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 p 29.11.2019
Question related to [☐ PPE Regulation	☑ EN/prEN: EN 137:2006	☐ Other:
Article:	Annex:	Clause: 6.11.1	
Key words: Temperature	performance		
	s to the requirements for breathing resistanc fore not to have operated 'trouble-free'?	e, can other defects result in the appara	tus being considered to have
Solution:			
Yes.			
	vates during the test at pressures above the inctioned and therefore not to have operated		ne apparatus should be
If leaks are detectable (e' trouble-free'.	ven by hand), the apparatus should be cons	idered to have malfunctioned and there	ore not to have operated
This is not intended as ar 'trouble-free'.	n exhaustive list as other malfunctions may b	be observed that are symptomatic of the	apparatus not operating



PPE-R/02.061
Version 1

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Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 2			Nation One	04.04.0040
			✓ Vertical Group✓ Horizontal Committee	21.04.2018 21.04.2018
			☑ Florizontal Committee☑ EU PPE Working Group	29.11.2019
Overstien related to	T DDE De sudeties			
Question related to	☐ PPE Regulation	EIN/PIEIN.	EN 149:2001/A1:2009 EN 1827:1999/A1:2009	Other:
Article:	Annex:	Clause:		
Key words: Choice of star	ndard			
Question:				
	ich both EN 149:2001/A1:2009 or EN 182	7:1000/۸1:20	NO could be considered an appro	nriate choice of standard?
Are there situations in wir	IICH DOUT EN 149.2001/A1.2009 OF EN 162	1.1999/M1.20	os could be considered an appro	priate choice of standard?
Solution:				
When taking into account	the scope and description of EN 149:200	1/A1:2009 ar	nd EN 1827:1999/A1:2009, in the	circumstance that all of
	standards could be considered appropriate		,	
The mask consists substa	antially, but not entirely, of filter material			
The mask does not include	de inhalation valves.			
The mask includes a re-u	sable frame/grid to hold the filter			
	to the re-usable frame/grid			
The filter protects against	· ·			
,	from the re-usable frame/grid			
The filters are replaceable	_			
·	or a maximum of single shift use.			
The lillers are designed it	or a maximum or single shift use.			
	- filter many or many make forms the projection of		food and autolotion value(a) was	
it should be noted that the	e filter may or may not form the primary se	aı against the	e face and exhalation valve(s) ma	y or may not be included.
vvnichever standard is ch	osen, the product shall satisfy all of the re	ievant require	ments of the chosen standard.	



PPE-R/0	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, cloggir	ng, penetration test			
a) test until 120 mg loab) or the penetration is	ing test the penetration test has to be ding of aerosol (NaCl and paraffin of measured as the average over a tirulation be measured?	oil)		testing time is.
Solution:				
	e clogging is measured as the average ore the clogging is measured until 12 nutes.	-	·	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 Monoxide Filter Marking			
Question:			
Is it possible to have a mixed marking of multi-type gas filters according to another standard than EN 14387:2008?	ing to EN 14	I387:2008 including a Carbon n	nonoxide (CO) marking
Solution:			
EN 14387:2008 states the Scope "Filters for use against CO are excl	luded from t	his standard."	
A mixed marking is not possible.			
An additional, clearly separated marking on the filter is possible.			



PPE-R/02.073 Version 1

Number of pages: 1	Approval stage :	Approved on :
Origin: VG2	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	08.08.2019 15.09.2019 14.03.2022
Question related to PPE Regulation PPE Guidelines N/p	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.		



PPE-R/02.080

Version 1

	RECOMMEND	ATION FO	K U3E	
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 P	PPE Regulation	⊠ EN/prE	N: EN 143:2021	☐ Other:
Article:	Annex:	Clause:		
Key words: specified mas	s of test aerosol for exposure test			
Question:				
According to EN 143:2021	1 para 6.12, Exposure tests shall be carrie	ed out.		
Mass of test aerosol is a p	pre-requisite of EN 13274-7:2019 (para4).			
Mass of test aerosol is no	t specified in EN 143:2021.			
What is the mass of test a	erosol to use?			
Solution:				
The mass of test aerosol t	to use during exposure tests is 120mg.			



PPE-R/02.08 [°]

Version 1

	KLCOWIWILINE	<u> </u>	N UOL	
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	⊠ EN/prE	N: EN 143:2021	☐ Other:
Article:	Annex:	Clause:		
Key words: conditioning	sequence reversed			
Question:				
In EN 143:2021, condition strength conditioning in a	oned filter shall be tested after the tempera accordance with 7.4.2	ature condition	ing in accordance with 7.4.1 fol	lowed by the mechanical
In previous version of the temperature conditioning	e standard EN 143:2000+A1:2006, filter sh g.	hall be tested a	after mechanical strength condi	tioning followed by
The conditioning sequen	ce is reversed.			
For filter already tested a according to EN 143:202	according to EN 143:2000+A1:2006, due to 21?	o of this condi	tioning sequence reverse, do w	e have to repeat the tests
Solution:				
The modification of the o	conditioning sequence is an alignment with	n ISO 17420-2		
This modification is not a	a modification of the state of the art.			
· ·	eat tests due to the modification of condition	oning sequenc	e.	
It can be necessary to re	epeat tests for other reason			



PPE-R	2/02.	082
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Version 1

RECOMME			
Number of pages: 1	Approval sta	ige :	Approved on :
Origin : Vertical Group 2	_	tal Committee 30/	02/2022 04/2022 08/2023
Question related to PPE Regulation PPE Guidelines	⊠ EN/prEN: EN 143:2	021 🗆	Other:
Article: Annex			
Article: Annex:	Clause:		
Key words: Storage test, use of "for single shift use only" picto	gram		
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 Expos	ure test (5.4 of EN 13274-7:201	9) and Storage test (5	.5 of EN 13274-7:2019)
- In 8 "markings", symbol 3.2.2 is not referenced			
Does it mean that all particles filters shall conform to test after	storage, be classified as reusal	ole and symbol of §3.2.	.2 shall not be used?
Solution:			
All particles filters shall meet the requirements after storage te	sts.		
If a manufacture still wants to indicate that single shift use is re EN 143:2021.	ecommended, the manufacture	should use the pictogr	ram defined on 3.2.2 of
The single shift use shall be clearly and completely defined in	the instruction for use		

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

Regulation (EU) 2016/425

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

Status: October 2023



PPE-R/03.032

Version 01

RECOMMENDATION FOR USE

Number of pages: 1	Appr	roval stage :	Approved on :
Origin : Vertical Group 3	⊠ I	Vertical Group Horizontal Committee EU PPE Expert Group	26/11/2021 30/04/2022 31/08/2023
Question related to PPE Regulation PPE Guidelines	⊠ EN/prEN: IS series EN ISO 1:		☐ Other:
Article: Annex:	Clause:		
Key words: Blue Light Absorption / Transmittance, protection	against blue light emitted	I by natural or artificial so	ources
Question:			
ISO 16321-1:2021 does only establish a requirement for sola requirement for blue-light absorption / transmittance for spect sources. A requirement for the blue-light absorption / transmit requirement for the blue light absorption / transmittance is giv limits are given in any of these standards.	acles and glasses intend tance of welding filters is	led to protect against rad given in ISO 16321-2:20	iation emitted from artificial 021, 4.3.1.2. Another
What shall be the requirement for the blue-light absorption / to against radiation emitted from artificial sources in the blue specific specific sources.		es, lenses or glasses inte	ended to provide protection
Solution:			
Which value, either / both the solar blue-light absorption / trar depends on the intended application.	nsmittance or / and the bl	ue-light absorption / trans	smittance shall be specified,
If the manufacturer claims that a filter (lenses, ocular etc) pro-	vides a protection agains	t blue light, either / both t	the color blue light absorption

If the manufacturer claims that a filter (lenses, ocular etc) provides a protection against blue light, either / both the solar blue-light absorption / transmittance τ sb (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 τ % (solar) blue-light transmittance, the (solar) blue-light transmittance, τ sb or τ b, of the filter shall not exceed (τ + 0,5) %. Where it is claimed that a filter has more than τ % (solar) blue-light absorption, the (solar) blue-light transmittance, τ sb or τ b, of the filter shall not exceed (100.5- τ x) %. 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/	Earmuffs with different	21.04.2018	21.04.2018	29.11.2019
		13819-1:2002	wearing modes, headband			
			force			
<u>04.006</u>	01	EN 352 (all	HPD of particular size,	21.04.2018	21.04.2018	29.11.2019
		parts), 13819-2	sound attenuation			
04.007	01	EN 13819-	measurement Ear-muffs, drop test	21.04.2018	21.04.2018	29.11.2019
<u>04.007</u>	01	1:2002	Lai-mans, drop test	21.04.2010	21.04.2010	29.11.2019
04.008	01	EN 13819-	Sound attenuation, earplugs	21.04.2018	21.04.2018	29.11.2019
		2:2002	in different colours			
04.009	01	EN 13819-	Sound attenuation, custom	21.04.2018	21.04.2018	29.11.2019
		2:2002	moulded earplugs			
<u>04.010</u>	01	EN 352-2:2002	Corded custom moulded	21.04.2018	21.04.2018	29.11.2019
			earplugs, corded earplugs,			
04.011	02	EN 352-2:2002	earplugs Re-usable earplugs,	20.05.2021	01.10.2021	18.11.2022
<u> </u>	02	2.1 002 2.2002	storage-packaging	20.00.2021	51.10.2021	10.11.2022
04.012	01	EN 352-3:2002	Helmet-mounted earmuffs	21.04.2018	21.04.2018	29.11.2019
04.015	01	EN 352-	Level-dependent earmuffs,	21.04.2018	21.04.2018	29.11.2019
		4:2001/13819-	MIRE, measurement noise,			
		2:2002	volume control			
04.017	01	EN 352-2:2002	Custom moulded earplugs	21.04.2018	21.04.2018	29.11.2019
<u>04.019</u>	01	EN 352-4:2001, 352-8:2008	Level-dependent earmuffs	21.04.2018	21.04.2018	29.11.2019
		332-0.2000	with integrated broadcast- receiver			
04.020	02	EN 352-6:2002	Communication earmuffs	20.05.2021	01.10.2021	18.11.2022
			with an audio input (by wire)			
04.022	01	EN 352-6/-8/-	Hearing protection device	21.04.2018	21.04.2018	29.11.2019
		11:2002	with audio communication			
04.027	01	EN 352-8:2008	Wireless complete hearing	21.04.2018	21.04.2018	29.11.2019
			protection systems with reproduced sound for			
			entertainment			
04.036	01	EN 13819-	Insertion loss, asymmetric	21.04.2018	21.04.2018	29.11.2019
		2:2002	design, electronic earmuffs			
04.037	01	EN 13819-	Nominal size designation,	21.04.2018	21.04.2018	29.11.2019
0.4.000	0.1	1:2002	flanged earplugs	04.04.0045	04.04.0016	00.44.0045
<u>04.038</u>	01	EN 352-4:2001	Level dependent	21.04.2018	21.04.2018	29.11.2019
		EN 352-7:2002	earmuff/earplugs, minimum criterion levels			
04.039	01	PPE Regulation	Earplugs, special use, risk in	21.04.2018	21.04.2018	29.11.2019
<u> </u>	•		water			
04.040	01	EN 352-7:2002	Earplugs, non-passive	21.04.2018	21.04.2018	29.11.2019
			earplugs, special use,			
0.4.0.4.4	0.1	EN 050 0 000	impulse noise	04.04.0045	04.04.0016	00.44.0045
04.041	01	EN 352-6:2002	Calculation of mean	21.04.2018	21.04.2018	29.11.2019
			electrical input level, earmuffs with electrical			
			audio input			
04.042	01	EN 352-2:2002	Banded earplugs worn	21.04.2018	21.04.2018	29.11.2019
			under the chin, test			
			dimension for sizing			

Status: October 2023

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					
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

Status: October 2023



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 ☐ EN/pr 13819-1:	EN: EN 352-1:2002/ 2002	Other:
Article: Annex: Clause: 4	.3.8 of EN 352-1, 4.4 of EN 138 ²	19-1
Key words:		
Earmuffs with different wearing modes, headband force		
Question:		
The test procedure (measurement of headband force) for earmuffs in different EN 352-1 and EN 13819-1. How shall the testing of 'headband force' and 'chan different wearing modes?		
Solution: 1. When the change in headband force is checked during mechanical tests, the control of the headband force have to be repeated the earmulation of the headband force have to be repeated the earmulation.	•	



PPE-R/04.006 Version 01

Number of pages: 1	Approval stage : Approved on :
Origin: VG 4 Hearing protection	 ✓ Vertical Group ✓ Horizontal Committee ✓ EU PPE Working Group ✓ 21.04.2018 ✓ 29.11.2019
	☑ EN/prEN: EN 352 (all parts),
Article: Annex: C	lause: 4.2 (of 13819-2:2002)
Key words: HPD of particular size, sound attenuation measurement	
Question: How to test hearing protectors of particular size in accordance with EN	13819-2:2002, clause 4.2?
Solution: VG 4 agrees that, when HPDs of a particular size (e.g. large, small) undependent to the used:	der EN 352 (all parts) are to be tested, the following protocol should
In the case of an HPD which does not fit all size ranges given in the statement does, the test shall be performed. If it does not, the subject shall be rejected.	



PPE-R/04.007 Version 01

Number of pages: 1	Appro	oval stage :	Approved on :
Origin: VG 4 Hearing protection	⊠ H	/ertical Group Horizontal Committee EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to PPE Regulation	⊠ EN/prEN: EN	13819-1:2002	Other:
Article: Annex:	Clause: 4.6 and	4.7	
Key words:			
Ear-muffs, drop test			
Question:			
How shall earmuffs be examined for damage after drop test?			
Solution:			
When examining an HPD for damage after drop test, if necessary, the then replaced.	e cushions and/or	liners should be removed	before examination and



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	2	
Key words:	Landa Proposition In the			
Sound attenuation, ear	olugs in different colours			
Question:				
	measurements be repeated in case an earp	lua ie eunnli	ed in different colours?	
Shall sound attenuation	i measurements be repeated in case an earp	iug is supplii	ed in different colours:	
Calution				
Solution:	ement should be performed and the samples	used for the	at maggurament chauld include	all colours
ii possible, one measur	ement should be performed and the samples	useu ioi ilia	at measurement should include	all colours.



PPE-R/04.009 Version 01

Number of pages: 1			Approval stage :	Approved on :
Origin : VG 4 Hearing p	rotection		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: EN 13819-2:2002	☑ Other: ISO 4869-1
Article:	Annex:	Clause: 4.	2	
Key words:				
Sound attenuation, cus	tom moulded earplugs			
Question:				
	moulded earplugs are offered with a special on measurements be performed using such cre		ded to ease the insertion of the	earplug into the ear-canal.
Chair Godina attoridation	Thousand home so performed doing each of	ann.		
0.1.6				
Solution: The sound attenuation	measurements shall be performed without the	e use of suc	h cream.	



PPE-R/04.010 Version 01

Number of pages: 1			Approval stage :	Approved on :
Origin : VG 4 Hearing ρ	protection (submitted by BGIA)		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to		⊠ EN/prE	N: EN 352-2:2002	Other:
Article:	Annex: II, 1.2.1	Clause:		
Key words:				
Corded custom moulde	ed earplugs, corded earplugs, earplugs			
0				
Question:		المالمة مماليا	when the send of sended sensity	wa waa waad ta waxaa ah a
	noval of earplugs ear drum ruptures occurred canal. What should notified bodies require fr			gs was used to remove the
, -				
Solution:				
	uld add a warning to the user information: "Wa	arning: Sudd	len or fast removal of the earplu	gs out of the ear canal may



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Version 2

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



PPE-R/0	4.012
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 352-3:2002	Other:
Article:	Annex:	Clause: 4.	3.4	
Key words:				
Helmet-mounted earmu	uffs			
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	Number of pages: 1			Approval stage :	Approved on :		
Origin : V	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/prE 4:2001/138	N: EN 352- 319-2:2002	☑ Other: ISO 4869-4		
Article:		Annex:	Clause:	/ 4.3.3			
Key word		nuffs, MIRE, measurement noise,	volume control				
Question	:						
1		nethod should be used for the test ic test fixture) technique be used?	•	ophone in real ear) or HATS (h	ead and torso simulator) or		
2	Which tolera	nces shall be aimed at for the ger	neration of the L-orientate	ed, M- , and H-orientated noise	described in EN 352-4?		
3	Which adjus	tment of the volume control shall	be 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		$L_{\text{A}}{}^{\text{=}}(\text{+}2\pm0,\!2)$ dB; H-orientated n tave bands and calculate the $L_{\text{C}}-$		dB; L-orientated noise: L _C – L _A	$= + 6^{+0.4}_{-0.2}$ dB. Measure in		
3	Adjust to ma	ximum volume.					

Status: October 2023



PPE-R/04.017 Version 01

Number of pages: 1			Approval stage :	Approved on :
Origin : VG 4 Hearing p	protection (submitted by BIA, Germany)		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: EN 352-2:2002	Other:
Article:	Annex:	Clause:		
Key words:				
Custom moulded earpl	ugs			
Question:	and the desired services and the services in the services and			
Which qualification is re	equired for a person, who makes impressions	s of the conci	na and external ear-canal of the	e test subjects?
Solution:				
	t by a trained specialist for hearing aids or add	eguately train	ned nersonal	
it should be carried out	t by a trained openialist for hearing alde of ad-	equatory train	ica personai.	



PPE-R/04.019
Version 01

RECOMMENDATION FOR USE

Number of pages: 1	Approval stage : Approved on :
Origin: VG 4 Hearing protection	 ✓ Vertical Group ✓ Horizontal Committee ✓ EU PPE Working Group ✓ 21.04.2018 ✓ 29.11.2019
] EN/prEN: EN 352-4:2001, 352- ☐ Other: 2008
Article: Annex: II, 1.2 C	ause:
Key words:	
Level-dependent earmuffs with integrated broadcast-receiver	
Question:	
How should level-dependent earmuffs with built-in broadcast-receivers	pe tested?
Caluffan	
Solution: Level-dependent earmuffs with built-in broadcast-receivers should be to	sted in the following way:
Level dependent carming with built-in produces receivers should be to	Stod III tile 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 v (according to EN 352-4:2001) at criterion level and simultaneously a pu is received by the specimen under test. The maximum sound level achieved	olic broadcast station or a corresponding signal of a signal generator
The manufacturer has to give a warning in the user information: "The at	idibility of warning signals at a specific workplace may be impaired."

Status: October 2023



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Version 2

Number of pages: 1		Approval stage :	Approved on :				
Origin : Vertical Gro	up 4		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	20.05.2021 01.10.2021 18.11.2022			
Question related to	□ PPE Regulation □ PPE Guidelines	⊠ EN/prEN	N: : EN 352-6:2002	Other:			
Article:	Annex:	Clause:					
Key words:							
Communication earmuffs with an audio input (by wire)							
Question: How should communication earmuffs be tested? Which requirements shall be fulfilled by these HPDs?							
Solution:	·		,				
One way system:							
1. In addition to the requirements found in EN 352-6:2002, Annex B, clause B.3 input voltages shall be given in Vrms.							
2. Assessment:							
- In case of an SPL-limitation test the limiter; the mean plus one standard deviation of the equivalent diffuse-field related SPL shall not exceed the level equal to 85 dB(A) minus 3 dB(A).							
in order not t	SPL-limitation test the specification of the ma o exceed the daily exposure limit. Two warning ts a risk of hearing impairment exists" and "T	ngs have to be given	ven in the user information like	"When exceeding the			
Two way system:							
	al contribution to the SPL by the transmission P.50 (09/99) and P.51 (08/96) with speech sir						
The manufacturer ha	as to give a warning in the user information: "	'The audibility of w	varning 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: 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/prE	N: EN 352-6/-8/-11:2002	☐ Other:				
Article:	Annex: II, 3.5	Clause:						
Key word	Key words:							
Hearing protection device with audio communication								
Question):							
i) Is a hearing protection device (HPD) with audio communication a hearing protector within the meaning of the regulation (EU) 2016/425?								
ii)	ii) Is it possible to certify a communication hearing protector without sound pressure limiter limiting the total exposure of the user according to the requirement given in the PPE regulation?							
Solution:								
i)	It is an HPD if the manufacturer declares it and it should me	eet the requ	uirements of the regulation.					
ii)	From the technical point of view it is possible to produce every communication hearing protector with a sound pressure level limiter. Therefore in general it should not be possible to certify communication hearing protectors without limiter. In case a specific need exists for no limitation or a limitation at higher values of L _{Aeq} (equivalent continuous A-weighted sound pressure level) than the limit values given by the							
	essential health and safety requirement "Protection against the harmful effects of noise", clause 3.5 of Annex II of the regulation (EU) 2016/425 on personal protective equipment,							
	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.							

Status: October 2023



PPE-R/04.027 Version 01

Number of pages: 1		Approval stage :	Approved on :			
Origin : VG 4 Hearing p	protection (submitted by BIA, Germany)		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019		
Question related to	☐ PPE Regulation	⊠ EN/prE	N: EN 352-8:2008	☐ Other:		
Article:	Annex:	Clause:				
Key words:		. 1 6	· · · · · · · · · · · · · · · · · · ·			
Wireless complete hearing protection systems with reproduced sound for entertainment						
Question:						
	it signals for example via local induction loap	e Howehoul	d such products he tested?			
These systems transm	it signals for example via local induction loap.	5. 110W 5110U	a sacii producis be lestea!			
Solution:						
They should be tested as earmuffs with broadcast receivers (see EN 352-8:2008, 5.2.3).						



PPE-R/04.036	Ć
Version 01	

RECOMMENDATION FOR USE

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Number of pages: 1		A	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/prEN:	: EN 13819-2:2002	Other:
Article:	Annex:	Clause: 4.1.4	1	
Key words: Insertion loss, asymmetric	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	onditioned speci produce electron	mens are tested together. EN ic earmuffs which show differ	I 13819-2 does not separate ent sound attenuation. This
4,0 dB in four or more adj	all cups and the criterion is given in EN 35 jacent one-third-octave bands, and not greentioned special earmuffs although the	eater than 7,0 d	B in any individual one-third-o	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	ie user informati	on 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	ignation to each earplug, the dimensions o	f that part or those parts of
the earplug that are intended to seal the ear canal are assessed using		
Which flanges shall seal the circular hole?		
Solution:		
At least that flange showing the smallest and that one with the larges	st diameter shall seal one circular hole.	



PPE-R/04.038 Version 01

RECOMMENDATION FOR USE

Number of pages: 1	Π.	Approval stage :	Approved on :
Origin: VG 4 Hearing protection (submitted by BIA, Germany)		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
	☑ EN/prEN: EN 352-4:2001 EN 352-7:2002		☑ Other: EN 352-1: 2002, EN 352-2:2002, EN 352-3:2002
Article: Annex:	Clause: 4.3.	2 (in both standards)	
Key words:			
Level dependent earmuff/earplugs, minimum criterion levels			
Question:			
Existing standards of the EN 352 series do not specify any minimum p worn (as designed) with the level-dependent mode in operation. In cas passive mode but exposes the user by an internal level of 86 dB(A) wh dependent mode this hearing protector offers a lower level of protection	se a level-de nere the ext	ependent earmuff/earplug prov ernal level is 83 or 86 dB(A) w	rides 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 8	5 dB(A). This eliminates extre	me products that have a
In addition to that requirement there are minimum criterion levels deriv 352-1 to -3 (H = 12 dB, M = 11 dB, L = 9 dB):	red from the	minimum attenuation values f	or passive HPDs from EN
Minimum criterion level H: 97 dB(A)			
Minimum criterion level M: 96 dB(A)			
Minimum criterion level L: 94 dB(A)			
(The determination of criterion levels is specified in EN 352-4:2001+A	1:2005.)		
These requirements shall only be applied for products that are aimed a defined for impulse noise (e.g. for hunters) it is not necessary to meet			ts that are specifically
The criterion levels shall nevertheless be mentioned in the user inform noise levels.	ation with a	warning that the product is no	t suited for high continuous



PPE-R/04.039 Version 01

Number of pages: 1			Appr	oval stage :	Approved on :
Origin : VG 4 Hearing μ	protection (submitted by INRS, France)		⊠ŀ	Vertical Group Horizontal Committee EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to		☐ EN/prE	N:		Other:
Article:	Annex:	Clause:			
Key words:					
Earplugs, special use,	risk in water				
Question:					
	used to protect hearing against the harmful eff ast the potential harmful effects of water in this			rplugs are also used by sv	vimmers (particularly in
The question is:					
Are earplugs used in so	wimming pools kind of PPE?				
Solution:					
categorisation of perso	on of PPE regulation (EU) 2016/425" (first edi nal protective equipment (PPE)) that "earplug ainst the regulation (EU) 2016/425 is therefore	s intended for	or świ		
	e to certify the product in question against the tection of the middle ear against water while s				



PPE-R/04.040 Version 01

Number of pages: 1	Approval stage : Approved on :			
Origin: VG 4 Hearing protection (submitted by INRS, France)	 ✓ Vertical Group ✓ Horizontal Committee ✓ EU PPE Working Group 21.04.2018 21.04.2018 22.11.2019 			
Question related to ☐ PPE Regulation ☐ EN/p	rEN: EN 352-7:2002			
Article: Annex: Clause:	4.1.4			
Key words:				
Earplugs, non-passive earplugs, special use, impulse noise				
Question:				
In which way shall the peak attenuation against very high level peak noise of lbe tested?	evel-dependent earplugs without electronic sound restoration			
Solution:				
Note that EN 352-7:2003 does not cover the assessment of protection of earplugs against the risk of exposure to high peak levels. Measure the peak attenuation on a suitable ear simulator, using an appropriate noise source. The conversion of the measurement data into data characterising the equivalent external impulse sound field may be not straightforward. Only those converted data can be used to compare the exposure under an earplug to peak limit values specified 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 ✓ 21.04.2019
Question related to PPE Regulation	⊠ EN/prEN: EN 352-6:2002 □ Other:
Article: Annex:	Clause: Annex B
Key words:	
Calculation of mean electrical input level, earmuffs with electrical aud	io 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

RECOMMENDATION FOR USE

Number of pages: 1	Approval stage : Approved on :
Origin: VG 4 Hearing protection (submitted by BGIA, Germany)	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group✓ 21.04.2018✓ 29.11.2019
Question related to PPE Regulation	☑ EN/prEN: EN 352-2:2002 ☐ Other:
Article: Annex: II, 1.3.1	lause:
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 unde tested in case they are especially designed for only "under the chin"? I heights shall be required as minimum?	
Solution: An additional specification for "under the chin" banded earplugs is need Use the heads specified in EN 13819-1, figure 11 and add the following 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 percentifier the 95th percentile of males. Anthropometric data used were collect Konstruktionsrichtlinien, Band 3; Stand: 1989, Zweite, überarbeitete un Wehrtechnik und Beschaffung, Koblenz, Carl Hanser Verlag, Müncher	test dimensions for the test height (horizontal distance top to hole): of females and head C represents dimensions relevant for the test d in "Handbuch der Ergonomie mit ergonomischen d erweiterte Auflage, herausgegeben von Bundesamt für



PPE-R/04.043 Version 01

Number of pages: 1	4	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	I: EN 352-2:2002	Other:
Article: Annex: II, 2.9	Clause: 6.2		
Key words:			
Banded earplugs, exchange of plugs of banded earplugs			
Question:			
EN 352-2 does not require a description on exchange of plugs of bar does for the exchange of cushions of earmuffs.	ınded earplugs	s to be included 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.	s of banded ea	rplugs to the wearer information	on in case he provides



PPE-R/04.044 Version 01

Number of pages: 1	A _l	pproval stage :	Approved on :
Origin: VG 4 Hearing protection (submitted by BGIA, Germany)		Vertical GroupHorizontal CommitteeEU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	⊠ 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 require and EMC requirements appropriate to this class of equipment." Whice 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 o circuit of the earmuff shall meet the appropriate electrical safety and 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/pi	rEN: EN 352-2:2002	Other:
Article: Annex: II, 3.5, III m) Clause:		
Key words:		
Additional check of protective function, custom moulded earplugs, leakage		
Question:		
For production of custom moulded earplugs individual imprints of the user's ear on this imprint the final PPE is produced by the manufacturer in his premises. Which results in a significant underprotection as studies showed. How can the requirement of the regulation (EU) 2016/425 be tested?	About 5 % of custom moulded ea	rplugs show a leakage
Solution: The number of cases, where leakage was found, can only by decreased, but in preparation of the imprint (duration is several minutes) can not completely be a canal - e.g. by decreasing of ear canal diameter – the imprint will become too significant and unknown reduction of the protective function. The user can not do using foam plugs. To guarantee the protective function as specified the only user's ear canal by the manufacturer. There are techniques available using e.g microphone. During EU type examination such a test has to be applied by the described by the manufacturer, see Annex III m) of the PPE regulation. The cobody during the EU type examination.	avoided and such a tension can c small. The final product will show compensate the leakage by e.g. v solution is to perform a final che g. little overpressure or loudspeak manufacturer as well as the test	hange the shape of the ear a leakage and in turn a deeper insertion as he can eck of the function at the ters 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 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/prEN: EN 352-6:2002	☐ Other:
Article: Annex: II, 3.5	Clause:	
Key words:		
Earmuffs with communication facilities		
Question:		
EN 352-6 uses MIRE technique to determine the dependence betwee test subjects are used the maximum level to be reached is 85 dB(A) (may be necessary during work. In order to be able to assess the total for higher input voltages and if it possible to extrapolate the MIRE date. How can the necessary additional data be determined and communications.	diffuse-field corrected). For safety-related sound exposure the user has to know if the a.	communication higher levels
for higher input voltages and if it possible to extrapolate the MIRE dat	a.	ne product benaves imean

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

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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 🛛 F	Other:		
Article:	Annex:	Clause: 6.1 c) and Annex B	
Key words: Hearing protectors with ac	ctive noise control		
user information is not re	equired to contain the total attenuation, onl	ntal sound attenuation in the active mode of the y the active values. I uation values shall be included in the user info	
1. Calculate the mean at measured according to 2. Interpolate the subject bands between 63 Hz a 3. Add the mean values octave band. 4. Average the three one negative values, i.e. the the mean of the total att 5. Sum the standard dev 6. Average the three stat the highest value has the	and standard deviation of the active attenual chapter 5.2/Annex B of EN 352-5. Itive REAT data (from 16 test subjects accound 8 kHz for mean and SD. Extrapolate the of the two contributions (active and passive) e-third- octave bands of total attenuation for residual level under the HPD). The lowest renuation in octave bands. Printing of passive and active attenuation quantard deviation values for one octave bands the highest weight for the end result. This yie each octave band by subtracting the standard deviation that is the passive and active attenuation quantard deviation values for one octave band by subtracting the standard octave band by subtracting the standard deviation that is the passive and active attenuation quantard deviation values for one octave band by subtracting the standard deviation that is the passive and active attenuation quantard deviation values for one octave band by subtracting the standard deviation that is the passive active attenuation quantary that is the passive active attenuation that is the passive active attenuation at the passive ac	e total (active plus passive) attenuation. It shall be saive attenuation determined according to EN attenuation in one-third-octave bands between 50 H artion in one-third-octave bands between 50 H artion in one-third-octave band 10 kHz. The second second is subjective data to 50 Hz and 10 kHz. The second is subjective data to 50 Hz and 10 kHz. The second is subjective data to 50 Hz and 10 kHz. The second is subjective data to 50 Hz and 10 kHz. The second is subjective data to 50 Hz and 10 kHz. The second is subjective attenuation has the highest weight for the entitle data tically for one-third-octave bands between displaying the standard deviation of the total attenuation dard deviation from the mean of the total attenuation $t_{tot} = t_{tot} - s_{tot}$	I ISO 4869-1:2018. Iz and 10 kHz as e-third- octave each one-third- z) energetically (using d result. This yields en 50 Hz and 10 kHz. sing positive values, i.e. lation in octave bands.
Content of the user information shall the derived HML and SNF	I contain the mean, standard deviation and	d APV between 63 Hz and 8 kHz for the total	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/pr	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 E	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 tes	t.



PPE-R/04.052 Version 01

Number of pages: 1	Approval stage :	Approved on :
Origin : VG 4 Hearing protection (submitted by IFA, Germany)	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to PPE Regulation	☑ EN/prEN: EN 352-6:2002	Other:
Article: Annex:	Clause: 6	
Key words: Hearing protectors for safety-related communication, user informat	tion	
Question: How can it be ensured that hearing protectors for safety-related copurposes?	mmunication (that do not contain a limiter) ar	e not used for entertainment
An additional warning in the user information should be included the "This product may not be used for entertainment since the output le		s level."



PPE-R/04.054 Version 01

RECOMMENDATION FOR USE

Number of pages: 1			Approval stag	e: Approved	on :
Origin : V	/G4 Hearing I	Protection	-	roup 24.11.2017 I Committee 18.07.2018 Vorking Group 05.11.2018	
Question	related to	☐ PPE Regulation	☑ EN/prEN: EN ISO 48	69-1 + -2	
Article:		Annex:	Clause:		
Key word	ds:				
Sound at	ttenuation, de	cimal place, APV			
Question	1:				
1.			ces) is the sound attenuation of an indivit report and used for further calculation?	lual test subject measured in ac	cordance:
2.			ces) are the mean and standard deviatio obe calculated and declared in the test	•	i test
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?				
O 1 "				•	-

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 I	Protection	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	02.10.2017 18.07.2018 0 05.11.2018
Question related to		☑ EN/prEN: prEN 13819-3:2016	Other:
Article:	Annex: II, 3.5	Clause: 7.4	
Key words:			
Hearing protectors wit	h Bluetooth [®] facilities		

Question:

With regard to prEN 13819-3:2016:

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

Solution:

- 4. The tests of both safety-related communication according to clause 7.4.1.1.1 and 7.4.1.1.2 of prEN 13819-3:2016 and of entertainment according to clause 7.4.1.1.3 of prEN 13819-3:2016 have to be performed and the corresponding requirements applied.
- 5. In all cases, the highest test signal level of -10 dB FS is to be used.
- 6. 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-F	R/04.	056
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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	20.05.2021 01.10.2021 18.11.2022	
Question related to PPE	Regulation PPE Guidelines	⊠ EN/prE	:N: : EN 352-2:2002	Other:	
Article:	Annex: II, 3.5	Clause: 6.	2		
Key words:					
Earplugs for children, user info	ormation				
Question:					
•	earplugs EN 352-2:2002 is not explicitions is tested in the range between 5 and	•	a certain age of the earplug use	ers. The nominal size	
What requirements should be applied to the user information for earplugs that are specially designed and marketed for children?					
Solution:					
Additional instructions and in	formation for the parents should be incl	uded:			

- - A warning that use of the earplugs is not suitable for children younger that five years of age since they are not able to give feedback on the quality of the fit (leakage, pain) to the adult inserting the earplug. Also other persons who are not able to give feedback (e.g. handicapped persons) should be excluded from using the product.
 - A description how to fit the earplugs to the ears of the child correctly.
 - A description how to remove the earplugs from the ears of the child.
 - A warning to check and make sure that the earplugs are worn correctly and continuously by the child.
 - A warning that the time a child stays in a noise area should be minimised.
 - A warning that excessive usage time can have adverse long term effects, e.g. due to the pressure in the earcanal; a recommendation for a usage time of approximately 90 min without break and approximately 3 h per day in total.

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				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
			13688:2013 (4.2)	colourants			
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	05.230	01		Water vapour resistance	28-8-2019	30-9-2019	7-2-2020
General	05.289	01		Dimensional change; seams	28-8-2019	30-9-2019	7-2-2020
General	05.292	01		Combination of PPE	28-8-2019	30-9-2019	7-2-2020
General	<u>05.355</u>	01		Reference to standards	28-8-2019	30-9-2019	7-2-2020
General	<u>17-007</u>	01		Categorization; combination of properties	28-8-2019	30-9-2019	7-2-2020
General	<u>19-013</u>	01		Draft standards	28-8-2019	30-9-2019	7-2-2020
General	<u>23-011</u>	01		Examination of models	28-8-2019	30-9-2019	7-2-2020
General	<u>25-003</u>	01	EN 530 / EN ISO 12947-2	Abrasion	28-8-2019	30-9-2019	7-2-2020
General	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
1.2.1.	04.000	0.4			00.0.0040	00.0.0010	7.0.0000
High Visibility	31-008	01		Harnesses	28-8-2019	30-9-2019	7-2-2020
High Visibility	05.181	01	EN 471: 2003 (4.1) / EN ISO 20471: 2013 (4.1)	Classification; Jacket with removable sleeves	28-8-2019	30-9-2019	7-2-2020
High Visibility	05.341	01	EN 471: 2003 (4.1, 5.1) / EN ISO 20471: 2013 (4.1, 5.1)	Classification; perforated materials	28-8-2019	30-9-2019	7-2-2020
High Visibility	05.116	01	EN 471: 2003 (4.1) / EN ISO 20471: 2013 (4.1)	Classification; combined performance materials	28-8-2019	30-9-2019	7-2-2020
High Visibility	28-009	01	EN ISO 20471: 2013 (4.1)	Minimum area	28-8-2019	30-9-2019	7-2-2020
High Visibility	29-012	01	EN ISO 20471: 2013 (4.1)	Combined performance material; class	28-8-2019	30-9-2019	7-2-2020
High	34-009	01	EN ISO 20471:	Background; encircle	28-8-2019	30-9-2019	7-2-2020

Number of	Sheet	Version	Reference	Keywords	Approved by	Approved by	Endorsed by
RfU	number				Vertical	Horizontal	PPE Expert
PPE-R/					Group 5	Committee	Group
Visibility	05.040	0.4	2013 (4.1, 4.2)	Davis and the first in	00.0.0040	00.0.0040	7.0.000
High Visibility	05.346	01	EN 471: 2003 (4.2) / EN ISO 20471: 2013 (4.2)	Design; retroreflective; patterns	28-8-2019	30-9-2019	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	29-010	01	EN ISO 20471: 2013 (4.2.1, 4.2.2)	Retroreflective bands; shoulders	28-8-2019	30-9-2019	7-2-2020
High Visibility	34-011	01	EN ISO 20471: 2013 (4.2.2)	Design; sleeve; torso.	28-8-2019	30-9-2019	7-2-2020
High Visibility	<u>29-001</u>	01	EN ISO 20471: 2013 (4.2.3)	waist; bib and brace	28-8-2019	30-9-2019	7-2-2020
High Visibility	28-008	01	EN ISO 20471: 2013 (5)	Acceptance of EN 471 test report	28-8-2019	30-9-2019	7-2-2020
High Visibility	30-001	01	EN ISO 20471: 2013 (5.3)	Colour fastness; trimmings	28-8-2019	30-9-2019	7-2-2020
High Visibility	<u>29-018</u>	01	EN ISO 20471: 2013 (5.3.3)	Colour fastness; hot pressing	28-8-2019	30-9-2019	7-2-2020
High Visibility	23-001	01	EN 471: 2003 (6) / EN ISO 20471: 2013 (6)	Segmented retroreflective tapes	28-8-2019	30-9-2019	7-2-2020
High Visibility	17-004	01	EN 471: 2003 (6.2) / EN ISO 20471: 2013 (6.2)	Washing, maximum number of cycles	28-8-2019	30-9-2019	7-2-2020
High Visibility	29-017	01	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 RfU	Sheet number	Version	Reference	Keywords	Approved by Vertical	Approved by Horizontal	Endorsed by PPE Expert
PPE-R/					Group 5	Committee	Group
	00.010		(4.5b)		00.0.0040	00.0.0040	
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	33 332		11612:2015 (4.5b)		20 0 20 10	00000	
EN ISO	23-010	01	EN ISO	Molten metal design;	28-8-2019	30-9-2019	7-2-2020
11612			11612:2015 (4.5d)	overlapping seams			
EN ISO	<u>29-015</u>	01	EN ISO	Design; closures	28-8-2019	30-9-2019	7-2-2020
11612	10.000		11612:2015 (4.5e)				
EN ISO 11612	<u>18-009</u>	01	EN ISO 11612:2015 (4.5)	Molten metal design; Zips	28-8-2019	30-9-2019	7-2-2020
EN ISO	27-014	01	EN ISO	Molten metal design,	28-8-2019	30-9-2019	7-2-2020
11612			11612:2015 (4.5)	closures, cover flap	20020.0	000 20.0	
EN ISO	25-011	01	EN ISO	Pre-treatment of material	28-8-2019	30-9-2019	7-2-2020
11612			11612:2015 (5.2.1; 5.2.3)				
EN ISO 11612	<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	05.334	01	EN 469: 2005	Pretreatment; flame spread	28-8-2019	30-9-2019	7-2-2020
11612	<u> </u>		(5.2)	Transamient, name spread	20020.0	000 20.0	
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	27-004	01	EN ISO	Heat resistance; hardware	28-8-2019	30-9-2019	7-2-2020
11612			11612:2015 (6.2.1)				
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	24-020	01	EN ISO	Multilayer garments	28-8-2019	30-9-2019	7-2-2020
11612	2+ 020		11612:2015 (6.3.2.2)	Multilayer garments	20 0 2013	00 3 2013	7 2 2020
EN ISO	29-004	01	ÈN ISO	Hole formation; outer layer	28-8-2019	30-9-2019	7-2-2020
11612			11612:2015 (6.3.2.2)	,			
EN ISO	<u>30-006</u>	01	EN ISO	Multilayer; Limited flame	28-8-2019	30-9-2019	7-2-2020
11612			11612:2015 (6.3.2.2)	spread; Heat transmission			
EN ISO 11612	<u>26-</u> <u>006a</u>	01	EN ISO 11612:2015	Flame spread; seams; accessories; hardware	28-8-2019	30-9-2019	7-2-2020
EN ISO	30-004	01	(6.3.2) EN ISO	Flammability behaviour;	28-8-2019	30-9-2019	7-2-2020
11612	30-004	01	11612:2015 (6.3.2.3)	hardware	26-6-2019	30-9-2019	7-2-2020
EN ISO	25-006	01	EN ISO	Flammability behaviour;	28-8-2019	30-9-2019	7-2-2020
11612			11612:2015 (6.3.2.4)	embroidery			
EN ISO	27-009	01	EN ISO	Flammability behaviour;	28-8-2019	30-9-2019	7-2-2020
11612			11612:2015 (6.3.2.4)	transfer logos			
EN ISO	<u>24-013</u>	01	EN ISO	Flame spread; hems; seams	28-8-2019	30-9-2019	7-2-2020
11612			11612:2015 (6.3.3.1)				
EN ISO	<u>26-008</u>	01	EN ISO	Seam strength	28-8-2019	30-9-2019	7-2-2020
11612			11612:2015 (6.5.4)				

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RfU	number	version	Reference	Reywords	Vertical	Horizontal	PPE Expert
	number						•
PPE-R/	07.000	0.4	ENLIGO		Group 5	Committee	Group
EN ISO 11612	<u>27-003</u>	01	EN ISO	Heat transfer; assembly;	28-8-2019	30-9-2019	7-2-2020
11012			11612:2015 (7.2; 7.3)	interlining			
EN ISO	34-014	01	EN 407: 2004	Radiant heat level	28-8-2019	30-9-2019	7-2-2020
11612	34-014	01	(5.4)	Nadiant neat level	20-0-2019	30-9-2019	1-2-2020
EN ISO	26-015	01	EN ISO	Molten metal splashes test	28-8-2019	30-9-2019	7-2-2020
11612			11612:2015 (7.4;	The state of the s		00 0 20 10	
			7.5) / ISO 9185				
EN ISO	30-008	01	EN ISO	Molten metal splashes test;	28-8-2019	30-9-2019	7-2-2020
11612			11612:2015 (7.5)	Retroreflective			
EN ISO	31-003	01	EN ISO	Second set of specimens	28-8-2019	30-9-2019	7-2-2020
11612			11612:2015				
			(Annex B)				
EN ISO	05.292	01		Combination of PPE	28-8-2019	30-9-2019	7-2-2020
11611	0.4.000	2.4	EN 100 1101		00.0000	00.0.0010	-
EN ISO	24-028	01	EN ISO 11611:	Single garments	28-8-2019	30-9-2019	7-2-2020
11611	04.000	04	2007 (4.1)	A delition of proctocations	00.0.0040	20.0.0040	7.0.0000
EN ISO 11611	<u>24-029</u>	01	EN ISO 11611:	Additional protective clothing	28-8-2019	30-9-2019	7-2-2020
EN ISO	26.016	01	2007 (4.1) EN ISO 11611:	Short sleeves; short	28-8-2019	30-9-2019	7-2-2020
11611	<u>26-016</u>	UI	2007 (4.1)	trousers	20-0-2019	30-9-2019	7-2-2020
EN ISO	05.335	01	EN 470-1: 1995	Design	28-8-2019	30-9-2019	7-2-2020
11611	00.000	01	(4.1)	Design	20-0-2019	30-9-2019	1-2-2020
11011			EN ISO 11611:				
			2007 (4.1)				
EN ISO	24-003	01	EN ISO 11611:	Design; neck; collar	28-8-2019	30-9-2019	7-2-2020
11611			2007 (4.1.1)	3 , 11 , 11 11			
EN ISO	29-016	01	EN ISO	Design; pockets	28-8-2019	30-9-2019	7-2-2020
11611			11612:2015				
			(4.5b)				
EN ISO	<u>29-014</u>	01	EN ISO	Design; pockets	28-8-2019	30-9-2019	7-2-2020
11611			11612:2015				
	00.04.		(4.5b)		00.0000	00.0.0010	
EN ISO	<u>29-015</u>	01	EN ISO	Design; closures	28-8-2019	30-9-2019	7-2-2020
11611			11612:2015				
EN ISO	23-018	01	(4.5e) EN ISO	Flame spread; cleaning	28-8-2019	30-9-2019	7-2-2020
11611	23-010	01	11612:2015 (5.2)	Fiame spread, deaming	20-0-2019	30-9-2019	7-2-2020
EN ISO	05.334	01	EN 469: 2005	Pretreatment; flame spread	28-8-2019	30-9-2019	7-2-2020
11611	00.004		(5.2)	l'introduitioni, name spread	20 0 2010	00 0 2010	7 2 2020
EN ISO	26-008	01	EN ISO	Seam strength	28-8-2019	30-9-2019	7-2-2020
11611			11612:2015				
			(6.5.4)				
EN ISO	24-013	01	ÈN ISO	Flame spread; hems; seams	28-8-2019	30-9-2019	7-2-2020
11611			11612:2015				
			(6.3.3.1)				
EN ISO	<u>26-006</u>	01	EN ISO 11611:	Flame spread; seams;	28-8-2019	30-9-2019	7-2-2020
11611			2007 (6.7)	accessories; hardware			
EN ISO	<u>25-002</u>	01	EN ISO 11611:	Heat transfer, multi-layers	28-8-2019	30-9-2019	7-2-2020
11611	04.011	0.4	2007 (6.9)	De l'est les de	00 0 00 10	00.0.0010	7.0.0000
EN ISO	34-014	01	EN 407: 2004	Radiant heat level	28-8-2019	30-9-2019	7-2-2020
11611 EN 460	17.045	01	(5.4)	Cortification	20 0 2040	20.0.2040	7 0 0000
EN 469	<u>17-015</u>	01	EN 469: 2005 (1)	Certification, separate	28-8-2019	30-9-2019	7-2-2020
EN 469	05 157	01	EN 469: 1995	clothing items Closure systems	28-8-2019	30-9-2019	7-2-2020
EN 409	05.157 b	01	(4.6)	Ciosule systems	20-0-2019	30-9-2019	1-2-2020
EN 469	<u>05.328</u>	01	EN 469: 2005	Neck protection	28-8-2019	30-9-2019	7-2-2020
	50.020		(4.3)	Trook protootion	2002010	30 0 2010	1 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	<u>21-013</u>	01	EN 469: 2005 (6.1.6)	Hardware; flame spread	28-8-2019	30-9-2019	7-2-2020
EN 469	22-001	01	EN 469: 2005 (6.1, 5.3)	Flame spread, materials, component assembly	28-8-2019	30-9-2019	7-2-2020
EN 469	22-003	01	EN 469: 2005 (6.1, 6.5, 3)	Flame spread, materials, hardware, braces	28-8-2019	30-9-2019	7-2-2020
EN 469	22-002	01	EN 469: 2005 (6.5, 5.3)	Heat resistance, materials, clothing assembly	28-8-2019	30-9-2019	7-2-2020
EN 469	<u>28-005</u>	01	EN 469: 2005 (6.7)	Tear strength	28-8-2019	30-9-2019	7-2-2020
EN 469	05.061	01	EN 469: 1995 (7.5) EN 469: 2005 (6.10)	Liquid penetration	28-8-2019	30-9-2019	7-2-2020
EN 469	23-020	01	EN 469: 2005 (6.14)	Fluorescent material	28-8-2019	30-9-2019	7-2-2020
EN 469	<u>25-001</u>	01	EN 469: 2005 (6.14, Annex B);	Retroreflective; fluorescent; minimum area	28-8-2019	30-9-2019	7-2-2020
EN 469	22-004	01	EN 469: 2005 (7.4.2)	Heat protection; marking	28-8-2019	30-9-2019	7-2-2020
EN 469	<u>25-007</u>	01	EN 469: 2005 (Annex B)	Retroreflective photometric performance	28-8-2019	30-9-2019	7-2-2020
EN ISO 14116	18-008	01	EN 533:1997 (4.1) / EN ISO 14116:2008 (4.1) / EN ISO 14116:2015 (4.1)	Index 1; skin contact	28-8-2019	30-9-2019	7-2-2020
EN ISO 14116	<u>26-006</u>	01	EN ISO 11611: 2007 (6.7)	Flame spread; seams; accessories; hardware	28-8-2019	30-9-2019	7-2-2020
Arc flash	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	27-002	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 (6e)	instructions for use; test results	28-8-2019	30-9-2019	7-2-2020
CHEMICAL	21-023	01	EN 14126 (4.1.4)	infective agents	28-8-2019	30-9-2019	7-2-2020
CHEMICAL	24-024	01	EN 14605: 2005	Face protection; User Information	28-8-2019	30-9-2019	7-2-2020
CHEMICAL	29-002	01	EN 14605: 2005 (4.1, 4.2)	Permeation; chemicals	28-8-2019	30-9-2019	7-2-2020
CHEMICAL	20-004	01	General	Abrasion, flex cracking, pressure pot	28-8-2019	30-9-2019	7-2-2020
CHEMICAL	05.318	01	General	Instructions for use	28-8-2019	30-9-2019	7-2-2020
CHEMICAL	05.158; 05.350	01	General	Pockets	28-8-2019	30-9-2019	7-2-2020
CHEMICAL	05.313	01	General	Repellency	28-8-2019	30-9-2019	7-2-2020
CHEMICAL	33-003	01	EN 14605: 2005/A1: 2009 / EN 13034: 2005/A1: 2009	Spray test; Jet test	28-8-2019	30-9-2019	7-2-2020
EN 388	17-011	01	General	Gloves without fingertip	28-8-2019	30-9-2019	7-2-2020
EN 388	05.125	01	General	performance levels	28-8-2019	30-9-2019	7-2-2020
EN 388	05.290 RFU 05.32- 003 r1	01	EN 388: 2016 (6.1)	Coated gloves, abrasion	28-8-2019	30-9-2019	7-2-2020
EN 388	32-003 r1	01	EN 388: 2016 (6.1.5.3)	Abrasion, layers	28-8-2019	30-9-2019	7-2-2020
EN 388	18-002	01	EN 388: 2016 (6.2.3)	Cut resistance	28-8-2019	30-9-2019	7-2-2020
EN 388	32-009	01	EN 388: 2016 (6.2.6)	Cut resistance	28-8-2019	30-9-2019	7-2-2020
EN 388	34-004	01	EN 388: 2016 (6.2.6)	Blade cut resistance	28-8-2019	30-9-2019	7-2-2020
EN 388	34-003	01	EN 388: 2016 (6.2, 6.3)	Blade cut resistance	28-8-2019	30-9-2019	7-2-2020
EN 388	05.264	01	EN 388: 2016 (6.4)	Tear strength	28-8-2019	30-9-2019	7-2-2020
EN 388	22-010	01	EN 388: 2016	Mechanical protection	28-8-2019	30-9-2019	7-2-2020
EN 388	27-001	01	EN 388: 2016	Leather; description; thickness	28-8-2019	30-9-2019	7-2-2020
EN 388	27-005	01	EN 388: 2016 (7,8)	Marking, Information	28-8-2019	30-9-2019	7-2-2020
EN 374	26-012	01	EN ISO 374-1: 2016	Marking	28-8-2019	30-9-2019	7-2-2020
EN 374	28-003	01	EN 16523- 1:2015	permeation, gloves with irregular design	28-8-2019	30-9-2019	7-2-2020
EN 374	33-001	01	EN ISO 374- 1:2016 / EN 374- 4: 2013	Degradation; Hydrofluoric Acid	28-8-2019	30-9-2019	7-2-2020
EN 374	33-002	01	EN ISO 374- 1:2016	Permeation levels; User information	28-8-2019	30-9-2019	7-2-2020
EN 374	32-005	01	EN374-4: 2013	Sampling, puncture test, irregular construction, chemical protective gloves	28-8-2019	30-9-2019	7-2-2020
EN 374	34-005	01	EN ISO 374- 1:2016 (Table 2)	Permeation against chemicals	28-8-2019	30-9-2019	7-2-2020

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Gloves 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	<u>19-012</u>	01	EN 420: 2010 (4.3.3)	Chromium	28-8-2019	30-9-2019	7-2-2020
Gloves EN 420	<u>19-011</u>	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	<u>18-014</u>	01	EN 420: 2010 (5.3)	Water vapour transmission and absorption	28-8-2019	30-9-2019	7-2-2020
Gloves EN 420	<u>23-006</u>	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	<u>19-010</u>	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	<u>22-017</u> (Q1)	01	EN 342: 2017; EN 14058: 2017	Categorization; scope	28-8-2019	30-9-2019	7-2-2020
Cold protective clothing	<u>27-015</u>	01	EN 342: 2017	ensembles and garments; cap	28-8-2019	30-9-2019	7-2-2020
Cold protective clothing	33-005	01	EN 342: 2017 / EN 14058:2017 Clause 5	pre-treatment; design and comfort; innocuousness	28-8-2019	30-9-2019	7-2-2020
EN 343	17-007	01	General	Categorization; combination of properties	28-8-2019	30-9-2019	7-2-2020
EN 343	<u>26-014</u>	01	EN 343: 2019	Removable sleeves	28-8-2019	30-9-2019	7-2-2020
EN 407	05.245 r3	01	EN 407: 2004	Categorization	28-8-2019	30-9-2019	7-2-2020

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EN 407	05.337	01	EN 407: 2004 (5.2)	Categorization; contact heat	28-8-2019	30-9-2019	7-2-2020
EN 407	<u>29-020</u>	01	EN 407: 2004 (5.2)	Classification; contact heat	28-8-2019	30-9-2019	7-2-2020
EN 407	34-014	01	EN 407: 2004 (5.4)	Radiant heat level	28-8-2019	30-9-2019	7-2-2020
EN 407	<u>29-019</u>	01	EN 407: 2004 (5.6)	Thermal protection; molten metal	28-8-2019	30-9-2019	7-2-2020
EN 407	<u>27-013</u>	01	EN 407: 2004 (4.2)		28-8-2019	30-9-2019	7-2-2020
EN 12477	<u>24-</u> <u>010a</u>	01	EN 12477: 2001 (5.7)	Convective heat	28-8-2019	30-9-2019	7-2-2020
EN 510	05.252	01	EN 510: 1993	Entanglement with moving parts	28-8-2019	30-9-2019	7-2-2020
EN 510	05.353	01	EN 510: 1993	External pockets	28-8-2019	30-9-2019	7-2-2020
ENLA 4 4 0 4	40.004	0.4	2.2.2	DDE 1.6 W	00.0.0040	00.0.0040	7.0.0000
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			
05.05-316	02	EN 366 / EN ISO	Blackening of calorimeter	15-06-2021	01-10-2021	18-11-2022
		6942				
05.05-348	02	EN ISO 20471:	Bands encircling the torso	15-06-2021	01-10-2021	18-11-2022
<u>05.21-010</u>		2013				
<u>05.17-002</u>	02		Instructions of use	15-06-2021	01-10-2021	18-11-2022
05.17-008	02		Protective clothing,	15-06-2021	01-10-2021	18-11-2022
			categorisation			
05.17-017	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 water vapour resistance?	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	_	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 model be examined? In this example it means examination of 15 jackets, provided by 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
25-003	EN 530 / EN ISO 12947-2	Abrasion	manufacturer. 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	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020
			accepts test reports only until a certain date, such date should be not less than 5 years. The Notified Body may also require verification testing of materials.	
30-007	Pretreatme nt; drying procedures	Is it permissible to omit drying procedures between wash cycles on washing pre-treatments where passive drying procedures are to be used (e.g. for ISO 11612, ISO 11611, EN 469, ISO 14116, ISO 20471 etc.)	Yes, as passive drying procedures do not affect properties such as heat and flame resistance, physical properties, colour and retroreflectivity. Where drying procedures are passive (e.g. Line dry, Flat dry, Drip Dry) drying procedures may be omitted between wash cycles and only conducted after the final wash. However, the material should be removed from the machine between washes.	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020
			But where active drying procedures are required (e.g. Tumble dry) the drying procedures must be conducted between washes, in standards where the laundry cycle is defined as "each cycle consists of one wash and one drying cycle".	
30-009	Module C2 schedule; Module B renewal	Vertical Groups have been asked by the Horizontal Committee to try to harmonize their procedures for Module C2. What principles should be followed when conducting Module C2 on protective clothing and gloves?	The Notified Body has the responsibility for the Module C2 process. All protection offered by the product shall be examined. The tests can be spread over 5 years. The tests carried out can be taken into consideration during the renewal of the EU Type-Examination Certificate.	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020
32-012	symbols, date of obsolescen ce, date of manufactu re, marking	Which symbols should be used, if information according to PPE Regulation Annex II, paragraph 2.4 is required on the marking / label of protective clothing or gloves?	If symbols are used, then the following symbols should be used: ISO 7000 nr 2607 for date of obsolescence	Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020
			ISO 7000 nr 2497 for date of manufacture	



CO-ORDINATION OF NOTIFIED BODIES PPE

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

EU PPE Expert Group

Approved on:

30-09-2019

7-2-2020

Shoot	Ctandard	Voy words	Question Proposed solution		Comment	
Sheet number PPE- R/05.		Key words	Question	Proj	poseu solution	Comment
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: "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	Minimum 50 mm band around the torso, the trouser legs and the sleeves.	
			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		
29-001	EN ISO 20471: 2013 (4.2.3)	waist; bib and brace	band not blocked. Does EN ISO 20471 allow to consider a band of retroreflective material around the waist of a of bib and brace trousers in the assessment of the minimum required area of retroreflective material?	No. Clause 4.1 of EN ISO 20471 contains the sentence: "Only those areas of retroreflective materials that comply with the design requirements of 4.2 shall be used in the assessment of the minimum required area of retroreflective areas." This design feature was a "must-have" in EN 471 for Class 2 and 3 but it's no longer considered. Neither the requirements in 4.2 nor the examples shown in Figure 3 refer to it.	

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

23-001	EN 471: 2003 (6) / EN ISO 20471: 2013 (6)	Segmente d retroreflec tive tapes	A retroreflective tape is available, 50mm in width, supplied on a clear film backing. The tape consists of separate sections of retroreflective material, each	1) this item is on the agenda of WG 7 for the revision of EN 471 2) gaps are acceptable provided the material meets the requirements of EN 471 3) gaps should not be counted as	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020 7.3]
			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?	background material 4) the reflective material can either be tested on a black background (worst case) or on the material it is applied on in the garment. The material type (knitted, woven,) should match the material type used in the garment and a suitable measuring area used which takes into account the gaps between the reflective materials.	
			2) Are gaps in the tape acceptable? Manufacturers may wish to make materials with larger gaps between segments, different segmented widths, and different off-sets. 3) Should gaps between tape segments he segmented		
			tape segments be counted as background material? 4) As the segmented tape is made to be bonded to fabric, this suggests that photometric measurement should be measured with the tape bonded to a standard material. Should this be a background material complying with EN471:2003 or some other material? The tape could be applied to the		
			non-fluorescent part of a garment. Statu	s: October 2023	

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 13356	High visibility accessorie s, minimum area	What is the meaning of the term "minimum area" in the text underneath table 2 of EN 13356. Does is mean the reflective area of the test specimen or does it refer to the area of 15 cm² which type 2 & 3 accessories should exceed (see clause 4.1). If "minimum area" does refer to 15 cm² 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.	Both requirements shall be met. The 15 cm² are necessary for the visibility from a distance. On the other hand the material shall also meet the 400 mcd/lx requirement.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
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Sheet

number

PPE-R/05.

24-007

22-018

05.229

Standard

(clause)

EN ISO

11612:2

EN ISO 11612:2

EN ISO

11612:2

015 (1)

Visors

One of the components of flame and heat

However the standards make no reference

protective clothing, is a hood

to tests (optical and thermal) or

same applies to some respiratory

requirements, like dead space.

performance levels for the visor. The

What shall be checked by the notified

incorporating a visor.

body?

015

015

CO-ORDINATION OF NOTIFIED BODIES PPE

Vertical Group 5: Protective clothing and gloves

EN ISO 11612

(EN 531) Rev.: 2019-08

Approved on:

Approval by

Horizontal

Committee:

30/09/2019

Approval by

PPE expert

group: 7-2-

2020

Approval by:

		RECOMMENDATION FO	OR USE	30-09-2019 7-2-2020	
l	Key words	Question	Pro	posed solution	Comment
	Catego rizatio n	What products conforming to EN ISO 11612 belong to category 3?	should be in accintended use at body has the ri manufacturer's The informatic appropriate appropr	on leaflet shall contain the	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
	Catego rizatio n	What category is aluminised clothing designed for steelworkers that meets requirements of EN ISO 11612 class A1, B3-B4, C3-C4 and is not dedicated exactly for emergency team? Annex I of the PPE Regulation it is pointed out that category III will cover: "e) high-temperature environments the effects of which are comparable to those of an air temperature of at least 100 °C;"	classified as cal From PPE Reg ed.) categoriza "Clothing and or not detachal manufactured at temperature en which are com temperature of which may or a by the presence flames, hot spl	gulation Guidelines (1st	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020

The notified body shall conduct the

optical protection components to

establish conformity with the basic

health and safety requirements (in

accordance with the intended use).

necessary tests for these respiratory and

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

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

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

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

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

30-006	EN ISO 11612:2 015 (6.3.2.2)	Multila yer; Limite d flame spread; Heat transm ission	1. According to EN ISO 11612:2008, 5.1: "Samples shall be representative of the component assembly, exactly as used in the finished garment". However, it is known that adding materials to the component assembly (e.g. high-bulk non-woven interlining and linings) can only increase the protection level for the parameters from Clause 7 (e.g. radiant heat and convective heat). In the case of multilayer protective clothing, also intended for protection against cold, must the Notified Body require testing of the complete assembly against the relevant heat transfer tests in Clause 7?	1. No. The classification for heat transfer can be based upon the performance of the outer fabric only, provided the assembly meets Code Letter A, and all fabrics meet the Heat Resistance requirements (6.2.1). 2. Yes. If the classification for heat transfer for a multi-layer garment is based upon the performance of the outer fabric only, hole formation in an interlining (e.g. a high-bulk non-woven providing protection against cold) during the limited flame spread test can be accepted.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020
			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	Yes. Closures which are completely metal and which are not sewn on to the garment do not have to undergo the test.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2- 2020

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

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

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

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

Agreed category for EN ISO 11612 levels.

Category III = **BOLD ITALICS**

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

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

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



CO-ORDINATION OF NOTIFIED BODIES PPE

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? (NOTE: The question refers to the larger, main zipper, not the short zipper on the	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
23-018	EN ISO 11611: 2007 (5.2.2)	Flame spread; pretreatmen t	outside of the flap.) 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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CO-ORDINATION OF NOTIFIED BODIES PPE

Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

EN 469

Rev.: 2019-08

Approval by:

Horizontal Committee

EU PPE Expert Group

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

	1			1		
Sheet number PPE- R/05.	Standard (clause)	Key words	Question	Proposed solution	Comment	
17-015	EN 469: 2005 (1)	Certification, separate clothing items	Is it possible to certify trousers (without the corresponding jacket) and jackets (without the corresponding trousers), if it is specified in the informative leaflet and in the certificate that they have to be worn with a jacket (resp. trousers) that fulfils the requirements of EN 469?	This is possible. The wording of the informative leaflet shall be very clear and precise.	Approval by Horizontal Con 30/09/2019 Approval by PPI 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 Con 30/09/2019 Approval by PPI 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 Con 30/09/2019 Approval by PPI 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 30/09/2019 Approval by PPE expert group: minimum tear strength 2005 (6.7) 07/02/2020 for non-coated outer be used. If there are problems material of at least 25 N with the when tested according 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

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

13937-2.

remains that if different laboratories use Status: October 2023

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	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020
				revision of the standard.	
25-007	EN 469: 2005 (Annex B)	Retroreflective photometric performance	The standard EN 469, annex B allows clothing for fire-fighters with retro reflective materials less than 50mm width. Example: Bands with fluorescent and retro reflective materials (yellow/silver/yellow) Which area must be used for the determination of retro reflective photometric performance?	Only the area of retro reflective material.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020



CO-ORDINATION OF NOTIFIED BODIES PPE

Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

EN ISO 14116

(EN 533) Rev.: 2019-08

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

Sheet number PPE-R/05.	Standard (clause)	Key words	Question		Proposed solution	Comment
18-008	EN 533:1997 (4.1) / EN ISO 14116:20 08 (4.1) / EN ISO 14116:20 15 (4.1)	Index 1; skin contact	EN ISO 14116 forbids contact between the skin and an index 1 material. EN 1149-5 on the other hand requires a sufficient contact between the antistatic side of the fabric and the skin. Does this mean that e.g. a PU-coated antistatic material can not be used for a combined protection against both risks.	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?	fabric certifi It is reassem being mater There each I worst produ tests i the reason.	nciple, testing from similar s can be used for cation. cognised that garment blies can be highly complex, comprised of a variety of ials and combinations. fore, it is recommended that Notified Body considers the case condition for the ct, thereby requiring those t deems necessary to satisfy quirements of the Standards he Regulation.	Approval by Horizontal Committee: 30/09/2019 Approval by PPE Expert Group: 07/02/2020



CO-ORDINATION OF NOTIFIED BODIES PPE

Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

IEC / EN 61482

Rev.: 2019-08

Approval by:
Horizontal Committee
EU PPE Expert Group

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

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



Sheet number

PPE-R/05. 05.272

CO-ORDINATION OF NOTIFIED BODIES PPE

Vertical Group 5: Protective clothing and gloves

EN ISO 9150

(EN 348) Rev.: 2019-08

		OMMENDATION FOR	Approval by: Horizontal Committee EU PPE Expert Group	Approved on: 30-09-2019 7-2-2020	
Standard (clause)	Key words	Question		Proposed solution	Comment
	calorimet er	How can we cool the molten metal splash calorimeter without producing a thermal drift?	It is better t external act	o 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: Approved on: Horizontal Committee 30-09-2019 **EU PPE Expert Group** 7-2-2020

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

^* * * ^		Vertical Group 5: Protective clothing and gloves		Rev.: 2019-08	
		Sibiling and gloves		Approval by:	Approved on:
		RFCO	MMENDATION FOR USE	Horizontal Committee	30-09-2019
		11200		EU PPE Expert Group	7-2-2020
Sheet	Standard	Key words	Question	Proposed solution	Comment
number PPE- R/05.	(clause)				
29-013	EN ISO 9185:20 07	Damage definition, PVC sensor	According to point 3.1 of the standard, the definition of damage is any flattening or modification of the roughness. 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 Gro clothing

RECOMMENI

specimen holder

EN ISO 15025

(EN 532)

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



Vertical Group 5: Protective clothing and gloves

CHEMICAL

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

		gloves		Approval by:	Approved on:
		DECO	MMENDATION FOR	Horizontal Committee	30-09-2019
		KECOI	USE USE	EU PPE Expert Group	7-2-2020
Sheet number PPE- R/05.	Standard (clause)	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 penetration, seams etc.	EN 13034:2005 Clause 4.2 states that seams for chemical protective clothing materials shall prevent penetration of liquid. For type 6 suits, the standard specifies that the whole suit spray test (according clause 5.2) should be performed, but is it enough to evaluate the resistance to liquid penetration of seams? A specific method to test the resistance to liquid penetration of seams for all kind of type 6 items (Type 6 suits or type PB 6) is not specified in EN 13034:2005. Should the seams be tested against the four chemicals listed in EN 14325 Table 9?	Garments covering the whole body (coverall, jackets and trousers) shall be subjected to a whole suit spray test to assess the (limited) spray tightness of the garment construction. This is not applicable to partial body protection items.	Approval by Horizontal Committee: 30- 9-2019 Approval by PPE expert group: 7-2-2020
27-002	EN 13034: 2005/A 1: 2009 (5.1)	Partial body protection	Are garments that only have a "secondary" protective function against liquid chemicals (primarily function is against heat, electric arc, EN 471) like separate jackets and pants, still considered as a chemical protective suit? This would demand a spray test. Or can the jacket & pants be considered as "partial body protection" Type 6 [PB], without a spray test (according to clause 5.1)? The fabric itself has passed all the tests according to EN 14325:2004, but the wearer has a low risk to get contaminated during the daily range of operations.	Garments intended to be worn as part of a suit must be subjected to the Spray Test. For single garments, the manufacturer must state in the Instructions for Use that the garment must be worn with a suitable corresponding garment that complies with EN 13034.	Approval by Horizontal Committee: 30- 9-2019 Approval by PPE expert group: 7-2-2020

18-003	EN ISO 13982-1 (6e)	instructio ns for use; test results	Should a manufacturer be allowed to indicate in the instructions for use the real values of test results obtained in EC type examination testing, when the requirement of these tests is expressed as a pass/fail criterion only?	No, according to sheet nr-CNB/P/00.077 RfU PPE-R/00.034, which is an explanation of the Regulation - annex II – item 1.4, the instructions for use must not be misleading for the user. Mentioning a measured value in addition to the conformity statement could make the user suppose that this value can be used to express the real performance of the equipment, and to determine the choice of the most suitable equipment and its conditions of use (for	Approval by Horizontal Committee: 30- 9-2019 Approval by PPE expert group: 7-2-2020
				example wear period) taking into account the risk analysis. This is not acceptable since the standardisation working group - after evaluation of the test method - only retained a pass/fail criteria instead of classes.	
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	Approval by Horizontal Committee: 30- 9-2019 Approval by PPE expert group: 7-2-2020
				materials, exposed to the risk, shall be tested	

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

22.000	ENT	۱ ۵	ENT 1 4 60 5 1 4 2 4 2	C1 4242 14242 2	4 77
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



Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

EN 388

Rev.: 2019-08

Approval by: Approval by:

Horizontal Committee
EU PPE Expert Group

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

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	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. Put the performance classification on the safe side.	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7- 2-2020	
05.290 RFU 05.32- 003 r1	EN 388: 2016 (6.1)	Coated gloves, abrasion	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?	The end point is reached when a hole appears in the whole material.	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7- 2-2020	

32-003 r1	EN 388: 2016 (6.1.5. 3)	Abrasion, layers	Clause 6.1.5.3. states: "Begin the test and check the test specimens after 100 rubs." "If a breakthrough is found when examining the test specimens at a given performance level, the classification will be at the preceding inferior performance level." "When the specimen is constituted of several layers the final result of the test will be the sum of the results of all the layers." Therefore if a glove has more than one unbonded layer, but each individual layer fails to meet 100 rubs, then following Clause 6.1.5.3, the glove would not meet Level 1 and would be unclassified for Abrasion, even if the total number of rubs from all layers added together would exceed 100. Can the layers be checked before Level 1 (100 rubs), and the total number of rubs at which the individual layers still comply be used for classification? Following the same principle, for multilayered gloves with layers at least Level 1, can a test be stopped between Levels and the results for individual layers (number of rubs at which layers still comply) be added together to achieve a Level greater than would be achieved by adding the Levels (number of rubs for the Level) together? E.g. Level 2 + Level 2 = 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	4-004 EN Blade cut resistance (6.2.6)		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	·		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	Mechanical protection		The results obtained on the weakest parts of the structure should be considered for the marking. This is sometimes in contradiction with taking	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7- 2-2020	
			a) Gloves with reinforcement patches almost completely covering the palm and thumb:	b) Gloves with reinforcement patches almost completely covering the palm but not the thumb: Glove a) Abrasion resistance: test on the complete structure, not on the separate materials. Tear strength of the reinforcement patches should be tested and		
			c) Gloves with reinforcement patches covering some places on the palm and thumb:	d) Gloves with only the palm reinforced by stitches. The abrasion and cut resistance of the complete structure is clearly higher than that of the component materials (outer layer and lining):	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) For abrasion use solution a) if the fingers are reinforced and solution c) if they are not. Glove c) Test without taking into account the reinforcement patches, but make a note in the consumer information brochure stating that the areas covered by reinforcement patches may have a higher protection level. Glove d) Abrasion and cutting: test with the stitches, it will be impossible to take test specimens otherwise. Tear on separate layers.	
					Puncture: on all layers together.	

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



Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

EN ISO 374

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

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

Sheet number PPE-	Standard (clause)	Key words	Question	Proposed solution	Comment
R/05.					
26-012	EN ISO 374-1: 2016	Marking	Article 17.1 of the PPE Regulation says that CE marking must be affixed to each piece of manufactured PPE so as to be visible, legible and indelible throughout the expected life of the PPE. However, if it is not possible in view of the characteristics of the products, the CE marking may be affixed to the packaging. For single use protective gloves, usually packed in a box containing 100 pieces, is it possible to consider the economic reason as the characteristic of the product which allows the CE marking to be affixed to the box instead of marking on each piece?	The PPE Regulation allows this "in view of the characteristics of the product". The PPE Guidelines confirms that "this would be justified where affixing it to the product was not achievable under reasonable technical and economic conditions" (Section 4.4), 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,	Clause 5.1 states: "Select three gloves for testing."	"one sample from each area" means that 2 sets of 3 specimens shall be taken from each of the	Approval by Horizontal Committee: 30-9-
		irregular constructio n, chemical protective gloves	"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."	different areas of each glove giving a total of 18 specimens for gloves of homogeneous construction, 36 from gloves with two different areas, etc.	2019 Approval by PPE expert group: 7-2-2020
			"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)?		
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



Vertical Group 5: Protective clothing and gloves

Gloves

General & Miscellaneous Rev.: 2019-08

Approved on:

Approval by:

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Sheet number PPE-R/05.		RECO	MMENDATION FOR US	SE	Horizontal Committee EU PPE Expert Group	30-09-2019 7-2-2020
		Key words	Question		Proposed solution	Comment
27-011	General	Gloves; cold; categorizati on	protecting against cold if a		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
23-007	EN 420: 2010 (4.3.2)	pH value			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
32-010	EN 420: 2003 (4.3.2)	pH value	says: "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	case b - they in the togeth or - deter single meet t	b can decide on a case by asis if perform the test as described Standard (all the layers er); rmine the pH content of each material which will have to he following requirement: H<9,5.	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7-2-2020
19-012	EN 420: 2010 (4.3.3)	Chromium	chromium (VI) content exclude chemical protective gloves?	testing gloves their C Other in case the ma	lause intended to address g of leather gloves. Leather s shall always be tested on Cr-VI content. gloves shall only be tested e of doubt. A declaration of anufacturer that the product of Cr-VI shall be required.	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7-2-2020
19-011	EN 420: 2010 (4.3.4)	Protein content	extractable protein content applicable to chemical protective gloves made from natural rubber?	extrac manda The no warnii	ause makes testing of table protein content atory. ote can be considered as a ang to be very careful with the retation of test results but is	Approval by Horizontal Committee: 30-9- 2019 Approval by PPE expert group: 7-2-2020

Status: October 2023

interpretation of test results but is not in contradiction with the

clause.

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

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

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



Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

Electrostatic charges EN 1149 series Rev.: 2019-08

Approval by:
Horizontal Committee
EU PPE Expert Group

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

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

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

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 (G. 1. 2	 			
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. 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, "	No, it is not possible according to EN 407.	Approval by Horizontal Committee: 30/09/2019
	2001 (3.2)	Contact Hout	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	according to E11 To 1.	Approval by PPE expert group: 7-2-2020
			in the burning behaviour test, otherwise the maximum contact heat performance that shall be reported is level 2."		
			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



Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

EN 510

Rev.: 2019-08

Approval by:
Horizontal Committee
EU PPE Expert Group

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

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



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.	Approval by 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



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



CO-ORDINATION OF NOTIFIED BODIES PPE Regulation 2016/425

PPE-R/05.05-110 Version 02

RECOMMENDATION FOR USE

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



CO-ORDINATION OF NOTIFIED BODIES PPE Regulation 2016/425

PPE-R/05.05-156 Version 02

RECOMMENDATION FOR USE

Number of pages: 1		1	Approval stage: Approved on:		
Origin: Vertical Group	5		\boxtimes	Vertical Group Horizontal Committee EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022
Question related to	PPE Regulation PPE Guidelines	⊠ EN/prEN (6.4)	EN/prEN: EN ISO 11612: 2015		
Article:	Annex:	Clause:			
Key words: Dimensional change, knitted fabrics					
Question: The 5% maximum change quoted in these specifications is neither appropriate nor accurately measurable for knitted fabrics.					
Solution:					
The 5% figure is maintained as a rule.					
The notified body may judge as an expert opinion that the knitted material is stretchable enough not to affect the protective properties, and a higher shrinkage is acceptable.					
The real shrinkage should be mentioned in the information for use.					



PPE-R/05.05-184 Version 02

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		Approval stage:	Approved on:
up 5		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	16.06.2021 01.10.2021 18.11.2022
	⊠ EN/prE	: N: EN 1082	☐ Other:
Annex:	Clause:		
are generally repaired, when a chain-mail bre	aks down.		
apply if these repaired butcher gloves are pla	aced on the ma	rket as a new product with a ne	w name?
placed on the market has to be considered as	a new product		
ed about the (un)safety of repaired PPE.			
	are generally repaired, when a chain-mail bre apply if these repaired butcher gloves are placed on the market has to be considered as	PPE Regulation ☐ PPE Guidelines ☐ EN/pre Annex: Clause: are generally repaired, when a chain-mail breaks down. apply if these repaired butcher gloves are placed on the ma	Up 5 ☐ Vertical Group ☐ Horizontal Committee ☐ EU PPE Expert Group ☐ PPE Guidelines ☐ EN/prEN: EN 1082 ☐ Clause: ☐ Clause: ☐ are generally repaired, when a chain-mail breaks down. ☐ apply if these repaired butcher gloves are placed on the market as a new product with a new polaced on the market has to be considered as a new product.



PPE-R/05.05-188 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 530:2010	Other:
Article:	Annex:	Clause:		
Key words: Abrasion, pressure				
Question:				
The pressure to be	used is not specified in all product standards.			
Which pressure sho	uld be used: 9 kPa or 12 kPa?			
Solution:				
9 kPa				



PPE-R/05.05-223 Version 02

RECOMMENDATION 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/prE	EN:	☐ Other:
Article:	Annex:	Clause:		
Key words:				
Marking, partial protecti	on			
Question:				
How can the marking be	e made when only a part of garment compli	es with a star	ndard?	
Example: The whole garment passes EN ISO 15025 A1level 3 and the requirements for CPC Type 6, but only the front of the garment can be categorized in class D3 for aluminium splashes. Can D3 be put on the marking?				
Solution:				
It is possible to mark wi is protected.	th the number of the standard, if in the mar	king and infor	mation of use it is clearly explai	ned which part of the body
1				



PPE-R/05.05-226 Version 02

Number of pages: 1		Approval stage:	Approved on:
Origin: Vertical Grou	p 5	✓ Vertical Group✓ Horizontal Comn✓ EU PPE Expert 0	
Question related to		ines EN/prEN: EN 14605	☐ Other:
Article:	Annex:	Clause:	
Key words:			
Attached items			
Question:			
At present there appears to be no requirement to test gloves, boots, etc attached to chemical suits for resistance to permeation against the same chemicals as the main body of the suit.			
Solution:			
We propose to test the materials of gloves to either EN 374-3 or EN 369 using the same battery of chemicals that the main part of the suit has been tested against.			
For the boots there is no standard. The N.B. shall conduct all necessary tests to establish the conformity for the same battery of chemicals.			
The user information	should include test data for the indiv	idual components of the clothing assembly.	



PPE-R/05.05-25
Version 02

1.	
Approval stage:	Approved on:
✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022
EN: EN ISO 20471:2013	☐ Other:
g), if accompanied by a referenc	e to the deviation and the



PPE-R/05.05-282 Version 02

RECOMMENDATION FOR USE					
Number of pages: 1				Approval stage:	Approved on:
Origin: Vertical Grou	ıp 5			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022
Question related to	⊠ PF	PE Regulation PPE Guidelines	⊠ EN/prE	EN: EN 470-1 (6.2)	Other:
Article:		Annex:	Clause:		
Key words:					
Molten metal drops;	high v	sibility			
Question:					
garments used for w		naterial be tested to EN 348 (Molten me operations?	etal) as well as	to EN ISO 15025 (burning beh	naviour) for high visibility
Solution:					
Yes, they shall fulfil t	the req	uirements for welder's protective clothin	ng.		



PPE-R/05.05-309 Version 02

RECOMMENDATION FOR USE				
Number of pages: 1			Approval stage:	Approved on:
Origin: Vertical Group	0 5		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022
Question related to		☐ EN/prEN	\ :	☐ Other:
Article:	Annex:	Clause:		
Key words: Test report, reference 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 a	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 blac	kened before	the tests.	
Is this absolutely neo	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: Aceto				



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

RECOMMENDATION FOR USE

Number of pages: 1		4	Approval stage:	Approved on:
Origin: Vertical Grou	ıp 5		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022
Question related to			I: EN ISO 20471:2013	☐ Other:
Article:	Annex:	Clause:		
Key words:				
Bands encircling the	etorso			
Question:				
EN ISO 20471:2013	, clause 4.2.2 states that garments covering th	e torso and arn	ns shall have retroreflective ba	ands "encircling the torso".
According to the dic	tionary a torso is the trunk of the human body,	without head or	r limbs.	
There is no problem to verify this requirement if the bands are put low enough (under the armpit) to encircle the torso fully. But what if the upper band is placed almost at shoulder height and hence can not encircle the torso fully?				
Solution:				

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

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





PPE-R/05.17-002
Version 02

Number of pages: 1	Approval stage:	Approved on:
Origin: Vertical Group 5	✓ 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:	Other:
Article: Annex: Clause:		
Key words: Instructions for use		
Question:		
EN ISO 13688:2013 requires that, in the instructions for use, the article number a	appears in the same way as it is ma	arked on the label.
The clause on labelling in the same EN ISO 13688 requires to indicate the article	designation: product type, comme	ercial name or code.
Is it acceptable to have a general sentence in the instructions for use, e.g. "These according to IEN ISO 20471:2013"? Or should each individual item be mentioned		
Solution:		
It is acceptable to use more general wording, on condition that:		
- it is possible to link the garment clearly to the correct "instructions for use" n notice applies to a group of items;	otice, e.g. by using article numbers	s, even if the same
- the notice gives an adequate explanation of all different classes and perform allows to identify the data, which apply to that particular item.	nance levels in the standard (where	e 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, 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	DECOMMENDATION E	ND LIGE	
Nur	nber of pages: 1	Approval stage:	Approved on:
		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/pr	EN:	Other:
Artio	cle: Annex: Clause:		
Key	words:		
Vari	ious performance levels in one garment		
Que	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 l	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 is sible and if the product standard does not contain specific and conflicting pr		ake on behalf of the user is
Exa	mples:		
1.	IEC 61331-3 on X-ray protective aprons specifies that the protection levels 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 level the garment should then be accompanied by the "i" pictogram to draw more	of the front should be announced	d. The "flame" pictogram on

Status: October 2023



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/	/prEN: EN ISO 20471:2013			
(4.2.1,	4.2.2)			
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 ISO 20471. A certification is only possible according to the Regulation if the relevant essential requirements are met. EN ISO 20471 however should not be mentioned in the marking or the information leaflet.				



PPE-R/05.18-005 Version 02

Number of pages: 1			Арр	roval stage:	Approved on:
Origin: Vertical Grou	ıp 5		\boxtimes	Vertical Group Horizontal Committee EU PPE Expert Group	16.06.2021 01.10.2021 18.11.2022
Question related to		⊠ EN/prEl	N: El	N 659:2008 (3.6)	Other:
Article:	Annex:	Clause:			
Key words:					
Firefighter gloves; p	uncture				
Question:					
In EN 659:2008, the	puncture requirement is level 3 instead of level 2	2 in the old v	ersio	on EN 659:1995.	
Most French fire-figh	nters gloves have level 2 and give entire satisfact	ion because	dex	terity is more important for	r fire-fighters than puncture.
Is it possible to certify according to the Regulation a fire-fighter glove with level 2 for puncture?					
Calution					
Solution:					
A certification against the essential requirements of the Regulation is possible, if an analysis of the foreseeable conditions of use shows that a performance level 2 for puncture is sufficient and a lower level of mechanical strength can be justified e.g. by the need of a better dexterity of the glove.					
The manufacturer sl	nall indicate and explain this adequately in the "ir	structions fo	r us	e".	
l					



PPE-R/05.18-006

Version 03

Number of pages: 1	Approval stage :	Approved on :		
Origin : Vertical Group 5	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	18/03/2022 30/04/2022 31/08/2023		
Question related to ☐ PPE Regulation ☐ PPE Guidelines ☐ E	EN/prEN:	☐ Other:		
Article: Annex: Clau	ise:			
Key words: Type 2; Trousers				
Question:				
This standard is only intended to evaluate the knee protectors as separate protectors should fit.	e items, 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 correct protectors?	protectors, can it be the user's respo	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 proshall be considered.	otective 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	lf, 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/p	orEN: 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 at an entrance angle β_1 =+5° and β_2 =0° and an observation angle α = 0,2°. In clauses 4.2.2 to 7 it is mentioned that all photometric requirements of Table 1 and 2 have to bemet. This is very confusing. Shall all the angles be measured after exposure or only one? Taking EN ISO 20471 for comparison, after exposureonly one angle is measured. Furthermore the requirements of EN ISO 20471 after exposure are lower than for a new product (from 330/250 to 100 cd/lux/m²), which is not the case in EN 13356.				
Although the requirements after exposure should notbe decreased too much,	we see no real need to measure a	at more than one angle.		
Solution:				
For Type 1, after exposure, measurements shall be repeated at two angles, 0 angles.	.2-degree observation angle and	+5 and -5 degree entrance		
For Type 2 & 3, after exposure, a measurement shall be repeated at one angle angle.	e, 0.2-degree observation angle a	nd +5 degree entrance		



PPE-R/05.22-008
Version 02

	RECUMINIENDA	TION 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	⊠ EN/prEN (5.3)	N: EN ISO 20471:2013	☐ Other:
Article:	Annex:	Clause:		
Key words:				
Colour fastness; non-fluo	rescent			
Question:				
	orescent materials are the colour fastness /	staining regu	irements in clause 5.3 applicat	nle?
0.1.11				
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 gar the colour fastness shall	rment can be used as a screening test to as be assessed.	sess the infl	uence of these small area mate	rials. For other materials
Clarification in the next re	evision 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/5 (4.2)	orEN: EN ISO 20471:2013				
Article: Annex: Clause:					
Key words: Retroreflective bands					
Question:					
Is it possible to place retro-reflective tapes in these directions – tape skew parallel in one direction (see pictures in EN ISO 20471) or is possible contrary skew?					
Solution: EN ISO 20471 allows this.					



PPE-R/05.24-006
Version 02

X	RECOMMENDA .		
Number of pages: 1		Approval stage:	Approved on:
Origin: Vertical Grou	p 5	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022
Question related to	☐ PPE Regulation ☐ PPE Guidelines	⊠ EN/prEN: EN ISO 20471:2013 (4.2)	Other:
Article:	Annex:	Clause:	
Key words: Retroreflective; enci	rcling bands		
	res retroreflective bands with a minimum width of wn in the example, meet the requirements?	of 50 mm to be applied in continuous bands	s. Does a deliberate offset in
Solution: CEN/TC 162/WG 7 The band shall be co	response: ontinuous without any offset.		



PPE-R/05.24-012b

Version 03

RECOMMENI	DATION FOR USE	
Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 5	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	18/03/2022 30/04/2022 31/08/2023
Question related to PPE Regulation 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 prote	ective clothing acc. to EN 1149-5 including u	se in explosive atmosphere?
Solution:		
Aprons or vests can be certified as electrostatic dissipative clothing worn beneath them.	g according to the PPE Regulation only in c	onjunction with the garments
They shall be subjected to a garment test as foreseen in EN 1149-to the item or items that the garment has been tested with.	-4 (under development) as an ensemble. Th	e Certificate must be limited



PPE-R/05.24-026 Version 02

RECOMMENDATION FOR USE			
Number of pages: 1		Approval stage:	Approved on:
Origin: Vertical Group	5	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022
Question related to	☑ PPE Regulation ☐ PPE Guidelines	⊠ EN/prEN: EN ISO 20471:2013 (4.1)	☐ Other:
Article:	Annex:	Clause:	
Key words:			
Measurement of back	ground material; combined performance mat	terials	
Question:			
It is possible to add the	e area of background material and combined	d material to achieve the total area?	
Solution:			
If using combined perf	formance material according to EN ISO 2047	71 Table 5, the full area of 0.20 m ² must be us	ed.



PPE-R/05.26-001 Version 02

RECOMMENDATION FOR USE

Number of pages: 1		Approval stage:	Approved on:	
Origin: Vertical Grou	ip 5		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	16.06.2021 01.10.2021 18.11.2022
Question related to		⊠ EN/prE	N: EN 13034	☐ Other:
Article:	Annex:	Clause:		
Key words:				
Breathable spray-tig	ht			
Question:				
protective garments 14605 which referer applications which re chemical permeation decontamination by	mmittee have identified a need for, and advantage they have highlighted a number of issues with the the second of	he current pose is commended in that offer garment (Expire). We have a comment of the comment of	ermeation test called up for Typongoing at CEN level. In the me ed by a Type 6 garment; but do amples of which include applica	pe 4 garments (through EN eantime, there are not necessarily need the ations requiring
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	⊠ EN/prE	N: General	☐ Other:
Article:	Annex:	Clause:		
Key words:				
Antineoplastic agents				
	phrase "against chemicals risks and antineo glove is tested with permeation test, EN 374-			
	en the glove is tested against at least four of			J
Cyclophosfamide / Carr Daunorubicin.	mustine / Adryamicin (Doxorubicin or Adribla	stine) / Fluor	ouracil / Methotrexate / Vincristi	ne / cis Platinum /
This list represents the	most used chemicals in hospital treatments.			
i e				
Solution:				
Yes. The phrase can be	e used if protection against an anti-neoplastic	agent is de	monstrated.	
The list of agents tested	d shall be included on the Certificate and the	User Inform	ation.	



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.			
The manufacturer wants to replace the retro-reflective tapes by another brand (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 □ EU PPE Expert Group EN: EN 61482-2 - IEC 2009 (4.2) 6:2015 and EN 61482-2.		



PPE-R/05.28-010 Version 02

Number of pages: 1	Approval stage:	Approved on:
Origin: Vertical Group 5	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022
Question related to PPE Regulation PPE Guidelines	⊠ EN/prEN: EN ISO 20471:2013	☐ Other:
Article: Annex:	(5.6.2) Clause:	
Key words:		
Coated fabrics and laminates; water vapour resistance		
Question:		
Clause 5.6.2 states:		
"For garments which offer protection against rain (coated woven and 343."	d knitted fabrics and laminates), test and cla	assify in accordance with EN
Should garments manufactured from coated fabrics and laminates w	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 compliance to EN 343;		
c) Tested to EN ISO 20471 clause 5.6.3.		
Solution:		
c) Tested to EN ISO 20471 clause 5.6.3.		



PPE-R/05.29-007
Version 02

RECOMMENDATION FO	OR USE	
Number of pages: 1	Approval stage:	Approved on:
Origin: Vertical Group 5	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022
Question related to PPE Regulation PPE Guidelines SEN/pr (5.6.3)	EN: 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 wate area is covered by such contrast material, e.g. for side inserts or the lowest sea part of torso? Do they also have to fulfil the Ret < 5, even if the size would hard	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, armpits and the size of those inserts altogether do not exceed 10% of background mate		e vapour relevant places



PPE-R/05.29-01
Version 02

	RECOMMENDATION FOR USE					
Νι	ımber of pages: 1				Approval stage:	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
Qι	uestion related to	⊠I	PPE Regulation PPE Guidel	ines	EN: EN ISO 11612: 2015	Other:
Ar	ticle:		Annex:	Clause:		
Ke	y words:					
De	efinitions; material;	; flam	e spread			
Qι	uestion:					
6.3	3.2.2, with the flam	ne to	layer garments are tested to 6.3 the outermost surface and the in		the outer surface only. Multi-lay	er garments are tested to
			12:2015 has new definitions:			
	14 material asser	-	ala of a multi lavor garmont aroa	antad avaatly as the fi	nighed garment construction	
	mbination of all mi		als of a multi-layer garment preson	anted exactly as the in	nished garment construction	
			series of separate layers, fixed	together during the ga	rment manufacturing stage	
	l6 multilayer mat		• •		g -12g-	
ma	-		erent layers intimately combined	prior to the garment n	manufacturing stage, e.g. by we	aving, quilting, coating or
1.	Is lamination glu	uing ?				
2.	Is a "material co	mbin	ation" considered to be a single	layer or a multilayer m	aterial?	
3.	ls a "multilayer n	mater	ial" considered to be a single lay	er or a material assem	nbly?	
4.			sidered to be single layer and the		e reasoning? What is the differe	nce for the safety of the
Α'	'single layer" is a s	single	e material that has not been intin	nately combined with a	another layer.	
So	lution:					
1.	Replace 'gluing'	with	'laminating'			
2.	A "material comb	binati	on" is considered to be a materia	al assembly.		
3.	A "multilayer ma	aterial	" is considered to be a material a	assembly.		
4.			e between a single layer or mult tant as the inner side of a single			innermost layer of a

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PPE-R/05.31-00 ²
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	16.06.2021 01.10.2021 18.11.2022			
Que	estion related to 🛛 I	PPE Regulation	elines	N: EN 13034:2005/A1:	Other:			
Arti	cle:	Annex:	Clause:					
Key	words:							
Wa	shing, reimpregnation	, care label						
Que	Question:							
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 possible reapplication of treatments shall be observed.			ning procedures and					
	In the case of garments that may have treatments reapplied, should they be tested after the maximum number of cleaning cycles (p 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 t	the instructions for use.					
6.	Garments that may have treatments reapplied should be tested for liquid repellency and penetration and the garment spray test after the maximum number of cleaning cycles, prior to reapplication of treatments. All other testing according to EN 13034 shall be tested after five cleaning cycles, as required by EN 14325:2004.							

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PPE-R/05.32-01
Version 02

Approval stage:	Approved on:					
✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	15.06.2021 01.10.2021 18.11.2022					
☑ EN/prEN: EN ISO 13688: 2013 (7.2)	☐ Other:					
Clause:						
) Is it allowed to use EN ISO 13688 or EN 420 alone and to put in the marking only EN ISO 13688 or EN 420?						
Is it required to put "EN ISO 13688" or "EN 420" in the labelling in addition to the specific product standard number?						
Solution:						
 No; marking with the number of the general standard alone is not allowed; see Introduction, Clause 1 (Scope) and marking – EN ISO 13688 Clause 7.2(h) and EN 420 Clause 7.2.1. 						
No, because Clauses 7.2 only require the number of the specific product standard in the marking.						
n n	Vertical Group Horizontal Committee EU PPE Expert Group EN/prEN: EN ISO 13688: 2013 (7.2) Clause: The marking only EN ISO 13688 or EN 420 In addition to the specific product standard in the tallowed; see Introduction, Clause 1 (Scope					



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 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 FOR USE					
Number of pages: 1			Approval stage :	Approved on :	
Origin : Vertical Group 5			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	22/05/2019 30/04/2022 31/08/2023	
Question related to F	PPE Regulation PPE Guidelines	⊠ EN/prE	N: 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 abrasion resistance of chemical protective clothing material.					
Annex E.1 contains the dimensions for the round test pot apparatus (diameter, height etc.). Annex E.2.2 contains the total volume of the pressure pot and associated device and tubing, however this volume is not possible with the given dimensions.					
When testing abrasion resistance according to EN 14325:2018, what dimensions should be used for the round pressure pot?					
Solution:					
The expected volume in A	Annex E.2.2 is incorrect. The dimensions	in Annex E.1	should be used to construct the	round test pot.	
The total volume contained in the pressure pot cell (about 475 cm3), pressure measuring device and piping, etc. shall be 570 (+0 /- 50) cm3.					



PPE-R/05.34-006 Version 02

^ * ^	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 ² .K/W						
- Maximum Ret: 55 m²	Maximum Ret: 55 m².Pa/W						
- Minimum Imt (calcula	Minimum Imt (calculated): 0.065						
Requirements of EN ISO 2	20471:						
- Maximum Ret: 5 m².F	Pa/W						
Otherwise:							
- Minimum Imt: 0.15	Minimum Imt: 0.15						
- When combined with	When combined with EN 343, the rules of the latter apply.						
However, a softshell cannot have taped seams, so combining with EN 343 is not possible.							
In this case, a standard which lists requirements for high visibility, has a more stringent requirement for Imt than a standard that addresses thermophysiological comfort.							
Can the lmt requirement of EN ISO 20471 be overruled by the requirements of comfort standard requirements?							
Solution:							
No. These items can be co	ertified to the Regulation.						



PPE-R/05.34-007 Version 02

** * **					
^	RECOMMENDA	ATION FO			
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 PPE Regul	ation PPE Guidelines	⊠ EN/prE A1:2009	N: EN 13034:2005/	Other:	
Article: An	nex:	Clause:			
Key words:					
Pre-treatment, liquid repellency and	penetration				
Question:					
Can we align the part pre-treatment from EN 13034 prior to testing of liquid repellency and penetration with the existing agreement RfU PPE-R/05.21-022 (compare with EN 469)?					
EN 14325:2018 says:	EN 14325:2018 says:				
"4.2 Pre-treatment					
4.2.1 Pre-treatment by cleaning and disinfection					
Before each test, all chemical protective clothing material samples, with the exception of limited-use chemical protective clothing, shall undergo pretreatment by cleaning and disinfection as applicable. If the manufacturer's instructions indicate that cleaning or disinfection is not allowed, i.e. limited use garments, then testing shall be carried out on new material.					
Where applicable according to manufacturer's instruction, the cleaning and disinfection shall be in line with the manufacturer's instructions, on the basis of standardized procedures. If the number of cleaning and disinfection cycles is not specified, the tests shall be carried out after 5 cycles of pretreatment, each consisting of one wash cycle, one dry cycle and one disinfection cycle carried out in the sequence as indicated by the manufacturer's instructions. This shall be reflected in the information supplied by the manufacturer. If the garment can be washed or alternatively dry-cleaned it shall only be washed, dried and disinfected. If only dry-cleaning is allowed, the garment shall only be dry-cleaned and disinfected in accordance with the manufacturer's instructions."					

Solution:

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

Examples:

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

Compare with the new prEN 469:2019 proposal:

"5.4 Deterioration of repellency by cleaning

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

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

Status: October 2023

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				
<u>08.005</u>	01	ISO 12402-	Sprayhood clear material	21.04.2018	21.04.2018	29.11.2019
		8:2006 and ISO				
		12402-				
		8:2006+A1:2011		04.04.0040		00.44.0040
<u>08.006</u>	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- 6:2006+A1:2010	12402-6)			
08.007	01	EN ISO 12402-7:	Hardware	21.04.2018	21.04.2018	29.11.2019
<u>06.007</u>	01	2007 and ISO	панимане	21.04.2010	21.04.2016	29.11.2019
		12402-7:2007				
		+A1:2011				
08.009	01	EN ISO 12402-	Buoyancy requirements and	21.04.2018	21.04.2018	29.11.2019
00.009	01	5:2006+A1:2010	testing procedures for 2	21.04.2010	21.04.2010	29.11.2019
		and ISO 12402-	piece 50N flotation suits			
		6:2006+A1:2010	processor metament cane			
08.010	01	EN ISO 12402-	Inherently buoyant material	21.04.2018	21.04.2018	29.11.2019
		7:2007+A1:2011	- Thickness of foam			
08.011	01	EN ISO 12402-	In water performance -	21.04.2018	21.04.2018	29.11.2019
		4:2006 and ISO	faceplane			
		12402-				
		4:2006+A1:2010				
<u>08.013</u>	01	EN ISO 12402-	Webbing and Thread	21.04.2018	21.04.2018	29.11.2019
		7:2007+A1:2011	requirements			
<u>08.014</u>	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
00.010	0.1	7:2007+A1:2011		04.04.0046	04.04.0045	00.44.0046
<u>08.016</u>	01	ISO 12402-	Buoyancy test method	21.04.2018	21.04.2018	29.11.2019
00.040	0.4	9:2006+A1:2011	Occasional and Indian	04.04.0040	04.04.0040	00.44.0040
<u>08.018</u>	01	ISO 12402-	Constant wear devices	21.04.2018	21.04.2018	29.11.2019
00.010	01	6:2006+A1:2010	Oral inflation avatama	24.04.2049	24 04 2040	20 11 2010
<u>08.019</u>	01	ISO 12402- 7:2007+A1:2011	Oral inflation systems	21.04.2018	21.04.2018	29.11.2019
08.022	01	EN ISO 12402-	IRM Oil, Foam testing	21.04.2018	21.04.2018	29.11.2019
00.022	01	7+A1:2011	Inside Oil, Foaili lesting	21.04.2010	21.04.2010	23.11.2013
08.023	01	EN 13138-1,-2,-	Colour requirements	21.04.2018	21.04.2018	29.11.2019
00.020		3:2008	Colour requirements	21.07.2010	21.07.2010	20.11.2019
08.026	01	ISO 12402-	Inflation tests	21.04.2018	21.04.2018	29.11.2019
00.020		9:2006+A1:2011	initialion toolo	21.07.2010	21.07.2010	20.11.2010
08.027	01	ISO 15027-	Resistance to illumination	21.04.2018	21.04.2018	29.11.2019
55.521	•	1:2012				
<u> </u>	1	1	<u> </u>	1	l .	1

Status: October 2023

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

Status: October 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

	INCOMMENDA	THOM TON OOL	
Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group 8	3	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018
Question related to	☐ PPE Regulation	⊠ EN/prEN: ISO 12402-8:2006 and ISO 12402-8:2006+A1:2011	☐ Other:
Article:	Annex:	Clause: 5.5.1	
Key words:			
Sprayhood clear materia	al		
Question:			
compliant with ISO 1240 requirement in Table 21	1:2011, Clause 5.5 for Sprayhoods. There is 02-7. However, there is no requirement specifor Window material but this is specifically for equirement for clear material on a sprayhood e packing difficulties).	ifically for clear material in ISO 12402-7:200 or viewing an inflation mechanism. These re	07+A1:2011. There is a equirements are also
Solution:			
	ragraph 4, line 1 of clause 5.5.1 in ISO 12402 od materials and the below compliance criter		h ISO 12402-7' is not
	mply with all requirements of ISO 12402-8 an ording to ISO 12402-9, clause 5.6.	d not affect the device meeting all requirem	ents when tested for in
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

\times \star	RECOMM				
Number of pages: 1	mber 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 ☐ Other: and ISO 12402-6:2006+A1:2010			
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 50 ments for testing and marking of 50N	N flotation suits compared to standard 50N buoya Flotation suits?	ncy aids, what are the		
Solution:					
When testing of one and	two piece flotation suits these should	be tested as special purpose devices under ISO	12402-6:2006+A1:2010:		
Additional requirements t	o be included in ISO 12402-6 as an a	additional clause specifically for this type of suit ar	e as follows:		
		1:2010 for PFD's level 50 shall be considered as -5:2009+A1:2010 and the test methods specified i			
In addition to the tests in	ISO 12402-5:2006+A1:2010, 5.6 the	Encumbrance assessment test in clause 5.5.1 sh	ould be carried out.		
5.5.1 Encumbrance Ass	sessment				
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 sh	Additionally 50N Suits should be marked in accordance with the following statement:				
6.5 50N Flotation Suits					
Each PFD shall be marke	Each PFD shall be marked 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 be considered as state of the art until the official amendments are published.					
	is the common sense of the exper the procedures of CEN and ISO.	ts of VG 8 and also those responsible for the S	Standardisation of PFD's		

Status: October 2023



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:				
	methods when testing hardware according to ure test only (as intended).	clause 4.7 a	are based on specific testing of	combination of webbing and
Solution:				
The intention of the tes	st must be to verify the actual strength of the b	uckles after	several exposures.	
The following solution	is recommended:			
No buckle may fail due webbing is used for the	to webbing breakage or slippage. If failure oc e test.	curs due to	the webbing it is recommended	I that another type of
	s for the specific webbing and closure combin Subject Performance Test.	ation are ve	rified in clause 5.5.1, Mechanica	al Properties Test and partly



PPE-R/08.009
Version 1

		RECOMMEND	DATION FO	R 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		N: EN ISO 12402- :2010 and ISO 12402- :2010	Other:
Article:		Annex:	Clause: 5.3	3.4	
Key word	ds:				
•		and testing procedures for 2 piece 50N flo	otation suits		
Question	1:				
The follo	wing points were	e discussed at the last VG8 meeting on 16	6th June 2010	with regards to testing of 2 piece	e flotation suits:
1.	requirements as	er wishes to test and certify a 2 piece flot s individual pieces, due to the likelihood c e device does not work as a PFD unless v	of either piece	being worn as a single item, or,	
2.		vidual pieces be tested in accordance wit 0? i.e. the jacket is tested alone, the trou			
Solution:					
1.		2 piece set must meet the minimum buo	yancy require	ments according to ISO 12402-	5:2006+A1:2010.
		ctory for the product only to be marked as ers in warm/ cold temperatures.	there is alway	s the possibility that the end us	er will remove either the
2.		2 piece set must meet the in water requi dividual garments and as a combination of			requirements must be met



PPE-R/08.010	
Version 1	

	TEOOMINETED/	1101110	1,000	
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 mater	rial – Thickness of foam			
Question:				
The standard does not c	learly spell out which thickness shall be teste	ed according	g to EN ISO 12402-7.	
This can be a potential p tested according to EN IS	roblem e.g. if a device is manufactured with SO 12402-7.	a 5 mm foa	m but only the foam in the thick	ness of 30 mm has been
It is FORCE Technology thicker layers.	s experience that the thinner layers of foam	are more lil	kely to fail the tests mentioned i	n EN ISO 12402-7 than
May a manufacturer use specified in EN ISO 1240	a foam thickness which thickness have not 02-7, clause 4.1.2?	been tested	according to EN ISO 12402-7	or covered be a range as
Solution:				
EN ISO 12402-7:2007+A	tly buoyant material of the same thickness at 1:2011, clause 4.8 or be covered by a range fully tested in accordance with EN ISO 1240	e according	to EN ISO 12402-7:2007+A1:20	



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 requir and face plane (min 20°). The EN 395:1995 standard did not have a requirement for face plane.	rements for Freeboard (min 80mm), Body angle (min 30° degrees)					
The EN 393. 1993 Standard did not have a requirement for face plane.						
Solution: The requirement for face plane on a 100N device is replaced with the rerequirements of a 100N device under EN 395:1995.	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					
Requirement for 100N devices: The face plane must be positive.						



PPE-R/08.013	
Version 1	

RECOMMENDATION FOR USE

Number of pages: 1		Арр	roval stage :	Approved on :			
Orig	jin : Vertical Group 8		$\overline{\boxtimes}$	Vertical Group Horizontal Committee EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019		
Que		⊠ EN/prE 7:2007+A1		N ISO 12402- 1	Other:		
Artio	cle: Annex:	Clause: 4.2	and	Table 1, 4.4 and Table 5			
Key	words:						
Web	bbing and Thread requirements						
Que	estion:						
1.	When testing thread and structural webbings in accordance with 60% retention requirement after the exposure to accelerated wea				-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.						
	It was therefore proposed that the requirements should be chang			<u>-</u>	<u>-</u>		
	minimum requirement following the accelerated weathering exposi-	sure instead	d of r	etaining 60% strength as f	ollows:		
	For sewing thread in Table 1 – Single strand breaking:						
	Minimum requirement following standard conditioning = 25N						
	Minimum requirement following accelerated weathering = 15	5N					
	For structural webbing in Table 5:						
	Minimum requirement following standard conditioning = 160						
	Minimum requirement following accelerated weathering = 96	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 materinimum of 300 mm in length.						

Status: October 2023



PPE-R/08.014	1
Version 1	

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



PPE-R/08.015)
Version 1	

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



PPE-R/08.016	3
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 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	3
Version 1	

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 8	✓ Vertical Group✓ Horizontal Committee	21.04.2018 21.04.2018
		29.11.2019
	SEN/prEN: ISO 12402- 2006+A1:2010	☐ Other:
Article: Annex: C	lause:	
Key words:		
Constant wear devices		
Question:		
Test Houses have been receiving several enquiries for testing of integra Harness due to the increase in Wind Farm Activity. Such devices are a		
What would be the testing requirements of such devices?		
Solution:		
Testing of such devices will be under ISO 12402-6+A1:2010 as special	purpose devices.	
PFD's must meet the requirements for both the Lifejacket under ISO 12 harness (current valid versions of EN 341, EN 353, EN 354, EN 355, EN		
This type of device is to be exempt from the donning test.		



PPE-R/(08.01	9
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	

RECOMMENDATION FOR USE				
Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 8	3		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation			Other:
Article:	Annex:	Clause: 4.8	3.2.7	
Key words: IRM Oil, Foam testing				
removed from existing t	resistance of foam flotation materi ables of ISO 12402-7:2007+A1:20 eria shall be used when testing in	011. Is the use of ASTM	Reference Oil No. 2 still to be	used for this exposure?
throughout the standard 2. The current complian cases in modern PFD's a buoyancy test is a bet	rence Oil No.2 with Diesel Fuel acd. I. Ince criteria in 4.8.2.7 to test the tell the foam is encased in an outer futer indication of compliance criterice criteria should be used when tell	nsile strength of the foal abric and so does not p ia as this is the primary	m following the exposure is no lay a structural part for strength function of inherently buoyant	longer relevant as in most h. It was agreed by VG8 that foam.
. , ,	per Table 12 of ISO 12402-7:2007 (min thickness of 20mm)	'+A1:2011)		

Exposure

70h in Diesel fuel according to EN 590 (current valid version)

Requirements

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

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.



PPE-R/08.023	
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

		TALOOMINILIND!	*******		/	
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/08.027
Version 1

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	8		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: ISO 15027-1:2012	Other:
Article:	Annex:	Clause: 4.	12.2	
Key words:				
Resistance to illuminati	on			
Question:				
In the 2012 version of I	SO 15027 there is no test to prove pass/fail of	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	nination test	to validate pass/fail criteria.	
Note. This was the requirement in the 2002 version of the standard. The 2002 version stated: '4.14.4. The tensile strength shall be of at least 300 N per 25 mm. Following exposure to rot or illumination , the tensile strength shall be measured using the grab method given in EN ISO 13934-2, using specimens of at least 60 mm width and with at least 100mm of material on each side of the test point, with 4 similar seams for each type of seam, cloth and fastening devices (including zip fasteners).'				



PPE-R/(08.028
Version	1

Number of pages: 1 Origin: Vertical Group 8			Approval stage :	Approved on : 21.04.2018 21.04.2018 29.11.2019	
			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group		
Question related to	☐ PPE Regulation	⊠ EN/prE	N: ISO 15027-1:2012	Other:	
Article:	Annex:	Clause: 4.1	2.2		
Key words:					
Thermal testing					
Question:					
For dual approval of ir standards?	nmersion suits in accordance with	ISO 15027 and SOLAS	can one set of thermal testing	be read across for both	
3:2012 approval where	nave been carried out in accordance e the test method used (i.e. temper	rature and exposure time	e) are identical to the requirement	ents of ISO 15027-3:2012.	
SOLAS approval (unle	have been carried out in accordancess the test method used for ISO 1: Where the test method used is no	5027-3:2012 (i.e. temper	rature and exposure time) is id	entical to that in the SOLAS	



PPE-R/08.029 Revision 01 Language: E

Number of pages: 1	Approval stage : Approved on :
Origin: VG8	 ✓ Vertical Group ✓ Horizontal Committee ✓ EU PPE Working Group ✓ 29.11.2019
	☑ EN/prEN: EN ISO 12402- ☐ Other: 7:2007+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 in defined in Annex B and the Martindale Method defined in ISO 12947	consistent test methods by referencing both the Wyzenbeek Method as -2.
What is the correct method to be used and what is the compliance c	iterion?
Solution:	
VG8 propose that the Wyzenbeek Method is the appropriate abrasic	n method.
As the intent of the compliance criteria is to validate the tensile strengerformed in accordance with ISO 13934-2 after the method defined	



PPE-R/08.032
Version 1

Number of pages: 1	Approval stag	e:	Approved on :		
Origin : Vertical Group 8		roup Committee Vorking Group	21.04.2018 21.04.2018 29.11.2019		
Question related to PPE Regulation	☑ EN/prEN: EN ISO 124 2:2006+A1:2010, EN ISO 3:2006+A1:2010		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 let 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 aver	ane of all test subjects as n	er the original re	quirements of EN ISO		
12402-2:2006 and EN ISO 12402-3:2006. The requirements for each			quirements of LIV 100		
No individual subject's torso angle shall be less than 20° behind vert	ical.				
No individual subject's face plane angle shall be less than 30° above	No individual subject's face plane angle shall be less than 30° above horizontal.				



PPE-R/08.033	
Version 1	

RECOMMENDATION FOR USE

Approval stage :	Approved on :			
✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019			
☑ EN/prEN: ISO 12402-9:2006 +A1:2011	☐ Other:			
Clause: EN ISO 12402-9:2006, clause 5 9:2006+A1:2011, clause 5.5.1	.1, EN ISO 12402-			
n test				
sentence the following is stated "All tests according to the following is stated according to the following to the following is stated according to the following to the followi	5.2).			
.1, the above-mentioned sentence was deleted	and Table 1 and Table 2 were			
Solution: The temperature cycle test shall always be performed first, then the rotating shock bin test. The two tests shall be performed prior to all other tests. The reason is that a potentially brake down of a material/component may not show if the rotating shock bin test is performed prior to the temperature cycle test. If a material/component becomes e.g. brittle due to the temperature cycle test, then the material/component will most likely brake/crack if it is subjected to the rotating shock bin test afterwards. If the rotating shock bin test is performed first, then failures of this kind will not be detected or be very hard to detect. In EN ISO 12402-9:2006, clause 5.1 mentions the temperature cycle first and then the rotating bin test even though the test clause for rotating shock bin test was 5.5.2 and the clause for temperature cycle was 5.5.3. This was because it was part of the requirement to carry out the test in this order. Unfortunately this has been lost with the introduction of Table 1 and Table 2 in ISO 12402-9:2006+A1:2011.				
S e o l i	Vertical Group ☐ Horizontal Committee ☐ EU PPE Working Group ☐ EN/prEN: ISO 12402-9:2006 +A1:2011 Clause: EN ISO 12402-9:2006, clause 5 9:2006+A1:2011, clause 5.5.1 In test The above-mentioned sentence was deleted a sentence the rotating shock bin test (see 5.5.1) The above-mentioned sentence was deleted a sentence may not show if the rotating shock bin test brittle due to the temperature cycle test, then the fin test afterwards. If the rotating shock bin test is expected was 5.5.3. This was because it was particle was 5.5.3.			

Status: October 2023



PPE-R/08.034 Revision 01 Language: E

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

Status: October 2023



PPE-R/08	3.035
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		☑ 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:				
Not for general use and no defined end user. For non-specific pouch type PFD's in accordance with ISO 12402-6 with no specific application stated by the manufacturer but intended for general use by no defined end user, this type of PFD can only be certified as a performance level 50 buoyancy, regardless of the amount of buoyancy provided. It must also be marked appropriately with additional warnings on the marked information and user information to inform the user that it is not a PFD without the necessary user intervention				
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✓ 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:	
	ing and rotating shock bin test be carried out first prior to all other tests but ing the tests from clause 4.12?
Solution:	
Yes	
All material samples must go through the temperature cycling the rotating shock bin test is not applicable for the material sar	test as a preconditioning to all the individual material tests in clause 4.12, but nples.



PPE-R/08.038 Revision 00 Language: E

Approved on :

RECOMMENDATION FOR USE

Approval stage :

rramber of pages.			, ipproval stage .	Approvod 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 1	2402-6:2006+A1:2010	☑ Other:
Article:	Annex:	Clause: 5.	4	
Key words:				
PFDs for fire fighting				
Question:				
What compatibility tes	sting is to be carried out for F	PFDs specifically intended for f	ire fighting application?	
0.1.6				

Solution:

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

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.

2. 180°C hot exposure test

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

Number of pages: 2			Approval stage :	Approved on :
Origin : VG8				• •
			☑ Vertical Group☑ Horizontal Committee	13.12.2017 13.07.2018
			☑ Horizontal Committee☑ EU PPE Working Group	05.11.2018
Question related to		⊠ EN/prE	N: EN 14225-1:2017	Other:
Article:	Annex:	Clause:		
Key words:				
Surface wetsuit testing	requirements			
Question:				
Working Group minute	surface activities such as water skiing etc. are es from 2013) and therefore require EC type- vetsuits, only EN 14225-1 which is for diving w	-examinatior		
What testing requirem PPE Regulation (EU) 2	ents are to be used to show compliance with 2016/425?	the basic h	ealth and safety requirements	aid down in Annex II of the
Solution:				
	4225-1 shall be used with exemptions of those	•		
Therefore wetsuits inte	ended for surface activities shall comply with the	ie following	clauses of EN 14225-1 (see Tal	ole overlear).



PPE-R/08.042 Revision 00 Language: E

Number of pages: 1			Approv	val stage :	Approved on :
Origin: VG8			⊠ Ho	ertical Group orizontal Committee J PPE Working Group	13.12.2017 13.07.2018 05.11.2018
Question related to PP	PE Regulation	2-5, Clause	e 5.5.10 2402-9:2	ISO 12402 Parts).2.3 2006+A1:2011,	☐ Other:
Article:	Annex:	Clause: Se	e above	е	
Key words:					
Force to inflate test for inflatab	le PFD's				
Question:					
incorporated on an inflatable P	PFD when testing in accordance with E	N ISO 1240	2-9:200	06+A1:2011, Clause: 5.5	5.9.3f)?
Solution:					
A higher upper load is require	activate the inflation mechanism on ar d to activate the manual inflation med product there are additional resistand	hanism inco	orporate	ed on the PFD than that	on the inflation mechanism



PPE-R/08.043 Revision 02 Language: E

RECOMMENDATION FOR USE					
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

Number of pages: 1	Approval stage :	Approved on :
Origin: VG8 (July 2018)	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	05.10.2018 15.09.2019 29.11.2019
Question related to PPE Regulation	☑ EN/prEN: EN 14225-2:2017	Other:
Article: Annex: II, 1.4	Clause: 7.1	
Key words:		
Information supplied with a diving drysuit		
Question:		
The new published standard EN 14225-2:2017 is incorrect in clau the text from clause 7.2 (Customer information to be supplied at the supplied for clause 7.1?		
Solution:		
To satisfy PPE Regulation annex II 1.4, the previous requirements Name and address of the manufacturer and/or his author Type of suit; Number of this document; List of all the components supplied; If the inflation hose is provided with a restrictor to limit air List of accessories and spare parts that are available; Explanation of any pictograms and markings.	rised representative;	d, as follows:



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Version 1

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RECOMME	IDATION FOR USE	
Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 8	✓ Vertical Group✓ Horizontal Commi✓ EU PPE Expert G	
Question related to PPE Regulation PPE Guidelines	⊠ EN/prEN: : EN 12402-2, 3, 4 8 5:2020	k ☐ 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 requ	rement in accordance with EN ISO 1240	02:2020 Parts -234 & -5.
What is to be assessed to be a sufficient indicator visibility for		
EN ISO 12402-2:2020 clause 5.1.4 Inflation status indicators "Inflatable lifejackets shall indicate if the inflator is correctly ar 12402-6:2020, 6.6. All inflation status indicators shall be groupe they are viewed simultaneously when examined prior to donning a buddy after donning the PFD."	ed or located such that when installed o	n a PFD in their intended position,
Solution:		
It shall be possible to inspect the inflation mechanism indicator buddy. For example, by unzipping or opening part of the cover access the area the inflation mechanism is located.	to inspect, or temporarily readjusting t	
The manufacturer's instructions shall be taken in to consideration	n when carrying out this evaluation.	



Version 1

RECO	OMME	NDATION	FOR	USE
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Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Gro	up 8		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	28.05.2021 01.10.2021 18.11.2022
Question related to		⊠ EN/prE	EN: : EN 12628:1999	Other:
Article: 5	Annex: II	Clause:		
Key words: EU type	examination - diving combined buoyancy and re	escue devices	3	
Question:				
A	000 4000 (- D' '	L	I I. P P	

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: October 2023



Version 01

RECOMMENDATION FOR USE						
Number of pages: 1			Appro	/al stage :	Approved on :	
Origin : Vertical Group 8			⊠ Ho	ertical Group orizontal Committee J PPE Expert Group	31/01/2022 30/04/2022 31/08/2023	
			lause: 5.6.1.1, 5.6.1.2 & 5.6.1.3, able 3, Table 4 and Table 5			
Key words:						
Test subject selection	criteria Multi-Sized Bu	oyancy Aids (level 50)				
Question: EN ISO 12402-9:2020 includes different requirements for test subject selection for 'multi-sized' buoyancy aids in 5.6.1.2 (para 2), but this is not currently differentiated in the footnotes of Table 3. How are the footnotes of Table 3 applied for multi-sized buoyancy aids for test subject selection criteria?						
Solution:						
Multi-Sized Buoyand	y Aids (level 50)					
shall be tested. It is re	cognised that a smalle		ts is tested for buoya	ancy aids, because the in	est subjects in each size n-water performance	
Footnote a) of Table 3	applies across the full	range of sizes so that	no more than two th	rds of test subjects shall	be of any one gender.	
, ,	,	•		size range is used for su	•	
		r each size and the 3 te lus one other subject w			est and largest body mass	
See example below for	r a buoyancy aid with	5 sizes, subjects should	d be selected as folio	ws:		
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	38kg and 42kg One subject between 43kg and 57kg	57kg and 63kg One subject betwee 64kg and 57kg	80-100kg en One subject betweer 76kg and 84kg en One subject betweer 85kg and 95kg en One subject betweer 95kg and 105kg	95kg and 105kg One subject between 106kg and 120kg	

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/09.0	02
Version 1	

Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group 9		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 22.04.2019
Question related to PPE Regulation	⊠ EN/prE	N: 1621-2: 2014	Other:
Article: Annex: II	Clause: 4.0	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, expres	sed in centimetres shall be spec	cified as a range up to max.
Should this maximum 5cm range be the number of centimetres betw should this maximum 5cm include both the maximum and minimum			ned (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 centimet protector is a	res between the maximum and vailable, (for example Size S =	minimum value claimed.



PPE-R/09.004
Version 1

Number of pages: 1	Approval stage : Approved on :				
Origin : Vertical Group 9	 ✓ Vertical Group ✓ Horizontal Committee ✓ EU PPE Working Group ✓ 21.04.2018 ✓ 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	21-4-2010	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	
applying a downward force to the boot at the start of the test but wou	Alternatively, a frame (or similar mechanism) could be placed over the boot to hold it in place during the test. The frame should not be applying a downward force to the boot at the start of the test but would restrict any upwards movement during the test. This way, any potential "swelling" during testing could be prevented, as well as the resulting loss of contact of the outsole with test surface.			
Either way signs of material melting should be considered as a sign	of non-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	ALION FOR L	JUL	
Number of pages: 1		Ap	pproval 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:		Other:
Article:	Annex:	Clause:		
Key words:				
Innocuousness AZO Dy	res			
Question:				
	ootwear should the Notified Body require the lance with the requirements?	e test reports pro	ving that the content of azo	dyes listed in the directive
likely. However, as a mi	the PPE Regulation 2016/425 does not differ inimum, all materials present on the inner surdous substances listed in Annex 17 of REAC	irface of the foot		



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

		21.04.2018
		21.04.2018 29.11.2019
Question related to PPE Regulation	N ISO 20344: 2011	Other:
Article: Annex: Clause: 5.15		
Key words:		
Water resistance, insock, water detection		
Question:		
Sometimes, especially when the footwear incorporates a membrane lining, water pen Water makes the insole wet, but it does not penetrate to the upper side of the insock, detected. What should be done?		
Solution: On finishing the test, the insock shall be removed to visually inspect the area for dam requirement.	npness 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/10.01
Version 01

Number of pages	:1		Approval stage :	Approved on :	
Origin : CIOP-PIE			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019	
Question related	o PPE Regulation	☐ EN/prE	N:	Other:	
Article:	Annex:	Clause:			
Key words:					
Overshoe, slip re	sistance				
Question:					
1. Should	electrically insulating overshoes (worn o	over classical footwear)	meet the requirement for slip re	esistance?	
2. Can an 2012?	overshoe or overboot be certified to and	d marked with EN ISO 2	20345: 2011; EN ISO 20346: 20	014 and EN ISO 20347:	
Solution:					
be give	s type of footwear shall be tested for slip n to the interaction between the oversho pusness, ergonomics etc) should be add	e and the footwear beir			
oversho	scope of the standard does not include to be or overboot and the footwear being we not addressed by EN ISO 20345/6/7.				
1					



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



PPE-R/10.020 Version 01

Number of pages: 1		Approval stage :	Approved on :
Origin : IFA-Germany	and PZ Haan BG BAU-Germany	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 29.11.2019
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

×	RECOMMEN	NDATION 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			
	Note. Hardness is not a precise measurement when testing footwear solings. If the laboratory adopts a standard procedure then good quality control data should be established. The aim is to assess if there is a difference between two materials, not to set hardness requirements.			
(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/prE	N: EN 13832-1: 2006	Other:
Article:	Annex:	Clause:		
Key words:				
Stocking, degradation te	st			
Question:				
	3832-1: 2006 - footwear protect tes "the lining shall be removed		here is a procedure for the prep	aration of samples for
Standard EN ISO 20345 considered as a lining"	: 2011, table 2, includes a not	e to say that the "stocking	covering the last before the mo	oulding process is not
	ross section of polymeric footw efore testing or should it be left		he question is :- Should this sto ion test ?	cking be considered as a
	Po	olymeric material		
		Stocking		
Solution:				
	cking damages the sample, it is ing the sample then this should		ull complex including the stockir	ng but if the stocking can be



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 this "lining" materials and the same and t	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

* * *				
Number of pages: 1	RECOMMENDATION FOR USE Number of pages: 1 Approval stage :			
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		Horizontal Committee 21.04.201		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	Horizontal Committee	18-12-2002 15-09-2019 07-02-2020
	N: EN ISO 1/EN 15090:2012	☐ Other:
Article: Annex: Clause: 5.4	8.1.3 (EN ISO 20345); 6.7.1 (EN	15090)
Key words: Heel shape		
Question: EN ISO 20345:2011, 5.8.1.3 specifies the depth of the sole cleats. EN 15090:2012, 6.7.1 states that "there are no continuous linear transverse valleys across the sole.		
In some cases, the back part of the sole in the heel area is not flat and it is constituted of small linear cleats (see figure hereunder)		
This heel shape should not be excluded because it can improve the footwear properties (for instance the slip resistance)		
Solution:		
The requirement of EN ISO 20345:2011, 5.8.1.3 (the depth of the sole cleats) and EN 15090:2012, 6.7.1 (no continuous linear transverse valley across the sole) do not apply to any inclined area at the back part of the heel if L (see figure) if this is lower small linear cleats in the heel area		



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 control of)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	•	



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Version 01

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/p	orEN:	Other:
Article: Annex: Clause:		
Key words:		
Samples / specimen numbers		
Question: What should be done where the number of samples specified in EN ISO 2034 e.g. Tear test on upper materials.	4:2011 is different from that spec	ified in the test method.
EN ISO 20344:2011. 1 sample from each of 3 sizes. Number of test pieces from	om each sample = 3	
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 a	along & 5 across	
Solution:		
In cases of conflict, the requirements of EN ISO 20344: 2011 should be follow (Where possible testing in both perpendicular directions)	ed	



PPE-R/10.055 Version 01

Number of pages: 1	Approval stage :	Approved on :					
Origin: INESCOP	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	15-09-2019 07-02-2020					
Question related to PPE Regulation PPE Guidelines	☐ EN/prEN:	Other:					
Article: Annex:	Clause:						
Key words:							
One model and different protecting components							
Question: We have sometimes allowed use of two different steel toecaps, very and the corrosion in both of them and that was all.	similar but different make. We have tested	the model with both toecaps					
But now a manufacturer wants to have in a single model the possibility to use steel and non metallic toecaps, metal and textile inserts. Of course all possibilities shall be tested, but, is it possible to call it a single model?							
Solution:							
When the safety components are from different materials that have of 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 of RfU	Version	Reference	Keywords	Approved by Vertical	Approved by Horizontal	Endorsed by PPE Working
PPE-R/				Group 11	Committee	Group
11.004	02	EN 364:1992	Length of the test lanyard	21.04.2018	21.04.2018	22.04.2019
11.004	02	EN 304.1992	EU type examined	21.04.2018	21.04.2018	22.04.2019
11.000			equipment; minor variations, additional testing / verification		21.04.2010	
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
<u>11.023</u>	02	All EN/prEN	Static testing; stressing rate	21.04.2018	21.04.2018	22.04.2019
11.024	02	EN 364:1992	Dynamic force measurement; filter characteristic	21.04.2018	21.04.2018	22.04.2019
<u>11.031</u>	01		Canyoning; caving	21.04.2018	27.12.2018	29.11.2019
11.034	02	EN 353-2 :2002	Fall protection system; special use	21.04.2018	21.04.2018	22.04.2019
11.037	02	EN1891:1998, EN 364:1992	Low stretch kernmantel rope - drop machine	21.04.2018	21.04.2018	22.04.2019
11.040	01		Date of manufacture, marking, ageing	21.04.2018	21.04.2018	29.11.2019
11.041	02	EN 795:2012 - type B	Vacuum, magnetic, anchor device	07.06.2021	01.10.2021	18.11.2022
11.042	01	EN 353-2:2002	Guided Type Fall Arrester - Incorrect attachment and use	21.04.2018	21.04.2018	29.11.2019
11.043	02	EN 361:2002, EN 358:1999	Back support; full body harness; waist belt; work positioning elements	21.04.2018	21.04.2018	22.04.2019
11.049	02	EN 1891:1998	Low stretch kernmantel ropes; diameter	21.04.2018	21.04.2018	22.04.2019
11.050	02	EN 353-2:2002	Guided type fall arrester including a flexible anchor line; static strength	21.04.2018	21.04.2018	22.04.2019
11.051	02	All EN for PPE against fall from a height with load bearing textile element	Load bearing textile materials	07.06.2021	01.10.2021	18.11.2022
11.053	02	EN 361:2002	Full body harness: front loops	21.04.2018	21.04.2018	22.04.2019
<u>11.057</u>	02	EN 361:2002	Marking of fall arrest	21.04.2018	21.04.2018	22.04.2019

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	01	EN 355 :2002	Energy absorber - static test – dynamic test	21.04.2018	27.12.2018	29.11.2019
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
<u>11.068</u>	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	02	EN 354:2010, EN 355:2002	EN 354, EN 355, horizontal use; lanyards with energy absorber, edge test	07.06.2021	01.10.2021	18.11.2022
11.075	01	EN 353-2:2002	EN 353-2, horizontal use; guided type fall arrester including flexible anchor line , edge test	21.04.2018	27.12.2018	29.11.2019
11.081	02	EN 353-2:2002, EN 364:1992	Guided type fall arrester, dynamic performance, non integral energy absorber, non integral lanyard	14.10.2020	01.10.2021	18.11.2022
<u>11.083</u>	01	EN 355	Samples, test order	21.04.2018	27.12.2018	29.11.2019
11.085	02	EN 360:2002	Retractable fall arrester, fall factor, locking feature	14.10.2020	01.10.2021	18.11.2022
11.087	01	EN 360 :2002	Removable lanyard, non retractable termination lanyard	21.04.2018	27.12.2018	29.11.2019
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	02	EN 358:1999, EN 354:2010	Pole choker, work positioning lanyard	21.04.2018	21.04.2018	22.04.2019
<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
11.096	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
11.105	01	EN 341:2011	Descender device, classes	21.04.2018	27.12.2018	29.11.2019
11.106	02	EN 360:2002	Retractable type fall arrester, retraction function with rotation	07.06.2021	01.10.2021	18.11.2022
<u>11.108</u>	01	EN 795:2012,	Anchor device, anchor	21.04.2018	27.12.2018	29.11.2019

Number of RfU	Version	Reference	Keywords	Approved by Vertical	Approved by Horizontal	Endorsed by PPE Working
PPE-R/				Group 11	Committee	Group
		TS 16415:2013	points			-
11.109	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
<u>11.113</u>	01	EN 795:2012, TS 16415 :2013	Anchor device, dynamic test, permanent deformation	21.04.2018	27.12.2018	29.11.2019
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
<u>11.117</u>	02	EN 341:2011	Descender devices for rescue; Function Test	14.10.2020	01.10.2021	18.11.2022
11.118	01	EN 341:2011	Descender devices for rescue; textile rope lines	21.04.2018	27.12.2018	29.11.2019
<u>11.119</u>	01	EN 353-1: 2014+A1/2017	Guided type fall arrester including rigid anchor line; Number of users simultaneously	21.04.2018	27.12.2018	29.11.2019
11.121	01	EN 353-1:2014	Function test, arrest distance	21.04.2018	27.12.2018	29.11.2019
<u>11.122</u>	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
<u>11.130</u>	01	EN 358:2018	Dynamic strength test, integrated lanyard	13.06.2019	15.09.2019	14.03.2022
11.131	01	EN 358:2018, EN 361:2002, EN 813:2008, EN 12277+A1: 2018	Fastening elements, harness, sit harness	13.06.2019	15.09.2019	14.03.2022
11.132	01	EN 361:2002	Maximum rated load, full 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
<u>11.135</u>	03	EN 795:2012,	Swivel, use for work,	02.12.2021	30.04.2022	31.08.2023

Number of RfU	Version	Reference	Keywords	Approved by Vertical	Approved by Horizontal	Endorsed by PPE Working
PPE-R/				Group 11	Committee	Group
		EN 354 2010, EN 362 :2004, EN 12275:2013 EN 365 :2004	industry, mountaineering			
11.136	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



PPE-R/11.004 Version 2

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 22.04.2019
Question related to	☐ PPE Regulation	⊠ EN/prE	N: EN 364:1992	Other:
Article:	Annex:	Clause: 5.	1.2.1	
Key words:				
Length of the test lany	rard			
Question:				
What is the definition of	of the length of a test lanyard?			
Solution:				
Define the length as p	er figure 2 of EN 1497:2007.			



PPE-R/11.006 Version 2

	RECOMMENDA	ATION FO	K UƏE	
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 equip	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 / verificati	on?
Solution:				
Examples of minor change	<u>jes:</u>			
 Change in trade r 	nark			
 Change in reference 	nce			
 Change in markir 	ng			
Documents to be supplied				
	n the manufacturer describing the change (. ,	ipment and confirming that ther	e is no further modification
 Manufacturers te 	chnical specification relative to the change			
 Sample or specin 	nen			
Conditions of validity:				
-	type examination extension			
 The extension file 	e is to be kept in the file of the original equip	pment		



PPE-R/11.007 Version 2

* * *	RECO	MMENDATION FOR USE	
Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group	o 11 'Protection against Falls from a	Height'	
Question related to		☐ EN/prEN:	Other:
Article:	Annex:	Clause:	
Key words: EU type examined eq	uipment; medium variations; verifica	ation; re-examination	
Question: What are medium var examination (visual),		uipment which require verification by re-checking, v	visual inspection, re-
Solution:			
	to be verified by re-examination:		
 Change in the 	e colour of a strap or a sewing threa	d	
 On a harness 	, an addition, a removal or a modific	cation in an accessory-support device	
 An addition, a 	subtraction or modification in a size	e (harness size or lanyard length)	
 Change in len 	gth of a lanyard on a retractable typ	pe 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

***	RECO	MMENDATION FOR USE	
Number of pages: 1	Approved on :		
Origin : Vertical Group 1	11 'Protection against Falls from a	a Height' ⊠ Vertical Group ⊠ Horizontal Con ⊠ EU PPE Worki	nmittee 21.04.2018
Question related to		☐ EN/prEN:	☐ Other:
Article:	Annex:	Clause:	
Key words:			
EU type examined equi	pment; essential variations; speci	ific or partial tests	
Question: What are essential varia	ations within EU type examined e	quipment which require specific or partial te	st?
Solution:			
	hanges requiring specific or parti	ial tests:	
 On a belt, a cha On a harness, a On a harness, a On a connector 	inge in the type of carriage guard a change in the metal buckle (mat a change in the dorsal plate , a change in the anti-corrosion tr e type fall arrester, a change in th	terial, dimension, treatment,)	

Documents to be supplied by the manufacturer:

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

Conditions of validity:

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

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



PPE-R/11.009 Version 2

Number of pages: 1	Approval stage :	Approved on :	
Origin: Vertical Group 11 'Protection against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 22.04.2019	
Question related to PPE Regulation	☐ EN/prEN:	☐ Other:	
Article: Annex:	Clause:		
Key words:			
EU type examined equipment; essential variations; EU type examin	ation		
Question:			
What are essential variations in EU type examined equipment which	n require a new EU type examination?		
Solution:			
$\underline{\text{Examples of essential changes requiring an EU type examination:}}$			
 On all PPE types, simultaneous or successive changes in c 	omponents requiring processing as in sheet	no. 11.008	
 On a harness, a change in the arrangement of straps and/o 	r seams		
 On a harness, a fundamental change in strap (width, materi 	al,)		
 On a harness, an addition, a removal or a shifting of an atta 	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 i anchorage line (diameter, material,) 	n the fall arrester (principle, configuration, n	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 identif 	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			
Overtion				
Question:		. (1		
How can the influence	of the chain test lanyard on the peak force in	i the dynamic	c performance test of an energy	absorber be avoided?
l				
l				
l				
Solution:				
	ain test lanyard on the peak force in the dynated to the energy absorber and not to the chain			r can be avoided, if the load
l				
l				
l				
1				



PPE-R/11.023
Version 2

Number of pages: 1		Approval stag	e: Approved on:
Origin : Vertical Grou	p 11 'Protection against Falls from a Height'	✓ Vertical G✓ Horizonta✓ EU PPE N	Froup 21.04.2018 Il Committee 21.04.2018 Working Group 22.04.2019
Question related to	☐ PPE Regulation	⊠ EN/prEN: All	☐ Other:
Article:	Annex:	Clause:	
Key words:			
Static testing; stressing	ng rate		
0 "			
Question:			
How can the stressing	g rate during static testing be adjusted to avoi	d dynamic effect and oversh	ooting of force control equipment?
Solution:			
	ring static testing shall not be constant or at a oid dynamic effects and overshooting of force		ired static force shall be reached within a
l			



PPE-R/11.024 Version 2

Number of pages: 1	А	pproval stage :	Approved on :
Origin: Vertical Group 11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 22.04.2019
Question related to PPE Regulation	⊠ EN/prEN:	EN 364:1992	Other:
Article: Annex:	Clause:		
Key words:			
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	ng testing of PF	PE against falls from a height	are as follows:
1. Type: Low-Pass			
2. Characteristic: Butterworth			
3. Cutoff-Frequency: 60 Hz			
4. Tolerance level at 0 Hz: +0,1/-0,2 dB			
5. Tolerance level at 60 Hz : (-3dB) +0,1/-0,3 dB			
6. Slope: 24 dB/Octave			
7. Tolerance level of the slope : +5/-5 dB			
8. Attenuation band: -50 dB			



PPE-R/11.031 Version 1

Number of pages: 1			App	proval stage :	Approved on :
Origin: Vertical Group	11 'Protection against Falls from a Height'		\boxtimes	Vertical Group 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	of harnesses used in "canyoning" and "cavin	g" sport?			
Solution:					
Harnesses used in abo	ove described sports have to be tested accord	ling to EN 12	277	"Mountaineering Equipment	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		⊠ 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
Question related to PPE Regulation S4:		Other:
Article: Annex: Claus	se: 5.9.2	
Key words:		
Low stretch kernmantel rope - drop machine		
Question: Dynamic performance and number of drops: Which drop machine has to be	e used (free fall or guided)?	
	, ,	
Solution:		
VG11 recommends to use the free fall machine.		



PPE-R/11.040 Version 1

Number of pages: 1 Origin : Vertical Group 11 'Protection against Falls from a Height'		Approval stage :	Approved on :			
		Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 27.12.2018 29.11.2019		
Question related to		☐ EN/prE	N:	☐ Other:		
Article:	Annex:	Clause:				
Key words: Date of manufacture	e, marking, ageing					
does not rough	PE against fall from a height subject to equire this? I be the format of the date? imum lifespan PPE against fall from a					
3. What maximum lifespan PPE against fall from a height made from non metallic components can be claimed in instructions for						



PPE-R/1	1.041
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Version 02

Number of pages: 1	Approval stage :	Approved on :
Origin: Vertical Group 11		
Ongin . Vertical Oroup 11	∀ Vertical Group	07.06.2021
	☒ Horizontal Committee☒ EU PPE Expert Group	01.10.2021 18.11.2022
Question related to ⊠ PPE Regulation ☐ PPE Guidelines ⊠ EN/pi	EN: EN 795:2012 - type B	Other:
Article: Annex: Clause:		
Alliox. Olduse.		
Key words:		
Vacuum, magnetic, anchor device		
Question:		
How to assess anchor devices attached to a structure by vacuum pressure or l	y magnetism?	
Solution:		
Anchor devices attached to structure by vacuum pressure or magnetism shoul	d be tested to EN 795:2012 as a	type B
device. Design shall at least take into account the base material.		
-		
uistance nom an euge		
How to assess anchor devices attached to a structure by vacuum pressure or leading to the structure of the s		type B



PPE-R/11.042
Version 1

	×					
	Number of pages: 1		Approval stage :	Approved on :		
Origin : \	ertical Group	11 'Protection against Falls fron	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 u	se			
Question	:					
1)	(normally up)	fall arresters can be provided wi wards). The release function/but working – What kind of warning	ton of the fall arrester mus	st be operated by hand. This ma	ay prevent the fall arrest	
2)		fety concerns associated with the uld be included within the manuf			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 metho	d 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	r 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	locking position or under each r 02	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		⊠ 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		⊠ 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 kern	mantel rope:	s be strictly fulfilled?	
Oak dia ay				
Solution: No, the minimum diam	eter shall be 8,5 mm or of a value giving the ϵ	equivalent sa	afety.	
			•	
1				



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	⊠ EN/prEN	N: EN 353-2:2002	Other:	
Article: Annex:	Clause: 4.4	.2		
Key words:				
Guided type fall arrester including a flexible anchor line; static streng	gth			
Question:				
How should the static test be carried out under EN353-2?				
1/ Should the static test include the whole system (e.g flexible ancho	or line specifie	ed by the manufacturer and the	fall arrester)?	
2/ Should the device be loaded through the fall arrester attachment	eye/lanyard/c	onnector?		
3/ What is the static strength a guided type fall arrester including a flanyard?	lexible anchor	line shall resist, if it is provided	d with a connector only, no	
Solution:				
1/ Yes – The test should be carried out to provide a strength test of the whole system (using the flexible anchor line specified by the manufacturer). If the fall arrester slips on the flexible anchor line during the static load, apply a stopper device, for example as end stop or as described in EN 12841:2006				
2/ Yes – The device should be loaded through the attachment eye/lanyard/connector as per normal use				
3/ The guided type fall arrester together with its connector shall withstand a strength of 15 kN. The testing shall be carried out in accordance with EN 353-2:2002, clause 5.2.2.2, but without a lanyard.				



PPE-R/1	1.051
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Version 02

×	RECOMMENI	DATION FOR USE	
Number of pages: 2	2	Approval stage :	Approved on :
Origin : Vertical Gro	oup 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: all EN for PPE against fall from a height with load bearing textile element	Other:
Article:	Annex:	Clause:	
Key words:			_
Load bearing textile	e materials		
Which kinds of load are not? Solution:	bearing textile materials are acceptable for use	e in personal protective equipment against fall	s from a height and which
Note: solution take	es into account document N1042 from TC136/W	/G5	
The following requ	irements apply to the load bearing textile mater	ials used in personal protective equipment ag	ainst falls from a height.
Note 1: Mixtures of	f acceptable materials are also acceptable.		
Note 2: Materials t bearing material(s)	hat are not themselves load bearing (e.g. elastic) are acceptable.	c yarn, polyethylene made of monofilament fil	ores) but mixed with load
Note 3: Other load	bearing textile materials are not acceptable exc	cept if documented justification can be provide	ed for specific application.
A – ROPES Examples: as PPE retractable lanyard	(dynamic rope, low stretch kernmantel rope, ac	ccessory cord) or component of PPE (lanyard	, sling, anchor line,
Common materia	ls		
A1 - polyamide:			
acceptable. A2 -			

polyester: acceptable.

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

High strength materials

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

B-WEBBINGS

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

Common materials

B1 - polyamide:

acceptable. B2 -

polyester: acceptable.

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

High strength materials

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

C - STITCHING MATERIAL

Common materials

C1 - polyamide:

acceptable. C2 -

polyester: acceptable.

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

High strength materials

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



PPE-R/11.053
Version 2

Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group	11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 22.04.2019
Question related to		⊠ EN/prE	N: EN 361:2002	☐ Other:
Article:	Annex:	Clause:		
Key words:	All lands			
Full body harness: from	it loops			
Question:				
	using the right connector to form the front att	tachment noi	nt of a full hody harness which	comprises two attachment
elements e. g. webbing		tacriment poi	nt of a full body flamess which	comprises two attachment
Solution:				
The manufacturer is reinstructions.	esponsible to specify exactly the type of conne	ector e. g. typ	pe / model which should be deta	ailed within the PPE user
If the manufacturer supplies a connector with the harness, the connector will be tested statically to EN 361:2002 in the most unfavourable axis, while attached to the harness				



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✓ Horizontal Committe✓ EU PPE Working Gr			
Question related to PPE Regulation	☑ EN/prEN: EN 361:2002	Other:		
Article: Annex:	Clause:			
Key words:				
Marking of fall arrest attachment points on EN 361:2002 harnesses				
Question:				
How could the 'A' marking appear on EN 361:2002 fall arrest attachm	ent 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 🖂 F	PPE Regulation PPE Guidelines	⊠ EN/prE	N: EN 360:2002	Other:
Article:	Annex:	Clause:		
Key words:	la tima fall amantan			
Horizontal use; retractab	ie type fall arrester			
Question:				
	for retractable type fall arresters intended	for horizonta	al use over an edge?	
	урс тап аптесто плетие		an dog over an odge.	
Solution:				
 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. General requirements: The retractable type fall arrester shall comply with the requirements in accordance with EN 360:2002. 				
	· ·	iii accordant	50 WITH LIV 500.2002.	
3. Additional requireme	nts:			
3.3 Dynamic performar3.4 Dynamic strength in	ntal arrangement ntal arrangement following optional condition nce in a horizontal arrangement when loade n a horizontal arrangement when loaded over the horizontal arrangement when loaded over a	ed over an ed er an edge v	with 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.

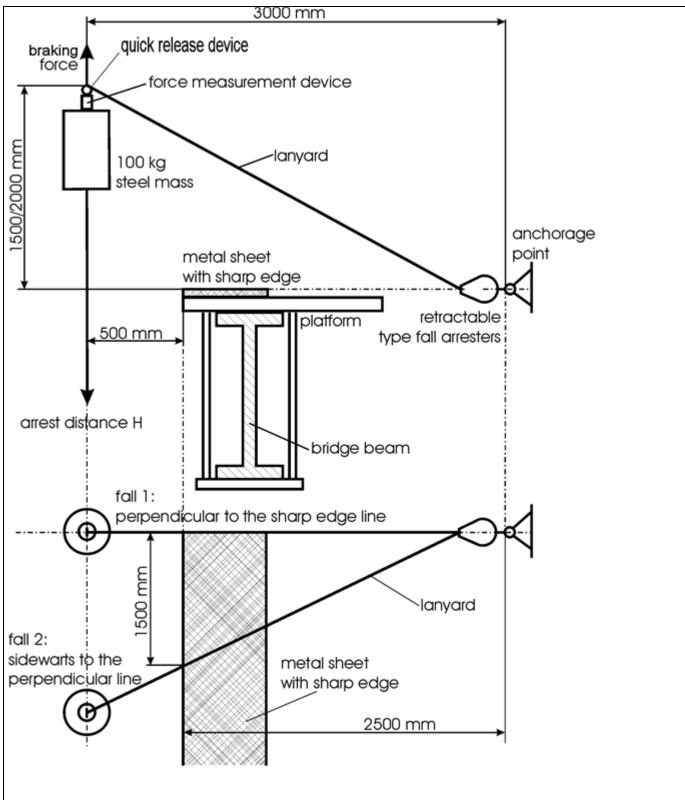


Figure 1: Dynamic performance test for retractable type fall arrester in horizontal use



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 Committee✓ EU PPE Working Group	21.06.2018 27.12.2018 29.11.2019
Question related to PPE Regulation PPE Guidelines	☑ EN/prEN: EN 353-2 :2002, EN 355:2002; EN 360:2002	☐ Other:
Article: Annex:	Clause:	
Key words:		
Testing with higher loads		
Question:		
How shall following PPE tested when the manufacturer claims in the $$	instructions a user weight greater than the	standard 100 kg?
 Guided type fall arrester including a flexible anchorage line 	(EN 353-2:2002)	
 Energy absorber (EN355:2002) 		
 Retractable type Fall arrester (EN360:2002) 		
Note: EN 353-1:2014 already requires test at maximum rated load		
Solution:		
These equipments shall be dynamically tested based on relevant star Values of standard have to be met.	ndard with standard load value and with va	lue manufacturer gives.
Note: in absence of specified claim for user weight, test shall be carri	ed out with the 100kg mass	



PPE-R/11.063 Version 1

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 27.12.2018 29.11.2019
Question related to ☐ PPE Regulation ☐ PPE Guidelines ☐ EN/pr	EN: EN 355 :2002	☐ Other:
Article: Annex: Clause:		
Key words:		
Energy absorber - static test – dynamic test		
Question:		
What test method should be used to carry out test on energy absorber including	g an integral lanyard?	

Solution:

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

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

Note 2: requirements apply to both fixed and adjustable lanyard

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

If the energy absorber is incorporated in a lanyard, the lanyard part shall be tested according to EN 354:2010. art 4.5 Note 3: twin tail energy absorbers shall be 'c-c' tested at 22kN (see 4.5 and 5.7.2.3 of EN 354:2010) whatever the design (independent or linked tail)

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

A 3-point test shall be performed starting with a situation as given in figure on the right. The legs shall be adjusted initially in line with no slack. For adjustable lanyards, legs shall be fully extended before the test. The energy absorbing element shall be positioned perpendicular to the line of the legs. A static load of 9 kN shall be applied for 3 minutes at the attachment point of the energy absorbing element while the attachment points of the twin tail lanyards are fixed. The energy absorbing element/twin tail lanyards-system shall sustain the static load of 9 kN without failure.

Note: 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

Energy absorbing element Leg 1 Leg 2

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

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	21.04.2018
			27.12.2018
		⊠ EU PPE Working Group	29.11.2019
	⊠ EN/prEl EN 353-2:2	N: EN 353-1:2014, 002	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 ar 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	
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 ir	ndividual use?	
Solution:				
When not intended to I	be used individually they shall be tested toget	her as per in	i use.	



PPE-R/11.069	
Version 2	

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 21.04.2018 22.04.2019
Question related to ☐ PPE Regulation ☐ EN/pr	EN: EN 361:2002,	Other:
Article: Annex: Clause: 4	.2	
Key words:		
Synthetic fibre, breaking tenacity		
Question:		
How to confirm breaking tenacity of synthetic fibre as 0,6 N/tex?		
Solution: VG11 members require confirmation (e.g. certificate of conformity) in manufactor of synthetic fibres as 0.6 N/tex.	urer's technical file declaring the	minimum breaking tenacity
Note: this requirement is not applicable to accessory straps.		



PPE-R/11.074

Version 02

RECOMMENDATION FOR USE

Number of pages: 3		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	N: EN 354:2010, EN	☐ Other:
Article: Annex:	Clause:		
Key words: EN 354, EN 355, horizontal use; lanyards with ene	ergy absorber, edge test		
Question: What tests are necessary for lanyards with an ener	gy absorber intended for horize	ontal use over an edge?	
Solution: Preliminary remarks: Remark for forked lanyard: Forked lanyard with one energy absorbing element Forked lanyard with energy absorbing element at on both legs			
The test principles relate to the testing of the partial form a non-detachable unit with the lanyard, when anchor point of this partial system may not be lower fastener / mobile guide) of at least 90° is assumed	eby one initially assumes a ran er than the stand level of the us	dom position of the energy abs ser. An angle (measured betwe	sorber in the system. The
General requirements:			
EN 354:2010 EN 355:2002			
Additional requirements:			
Dynamic performance with horizon Dynamic and static strength with horizon			
Additional test to be performed:			
Preliminary remarks: A drawn square stee	el bar pursuant to EN 10278:19	999 (Material C 45 K / E 335 G	C (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

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.

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 D-ring 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.

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

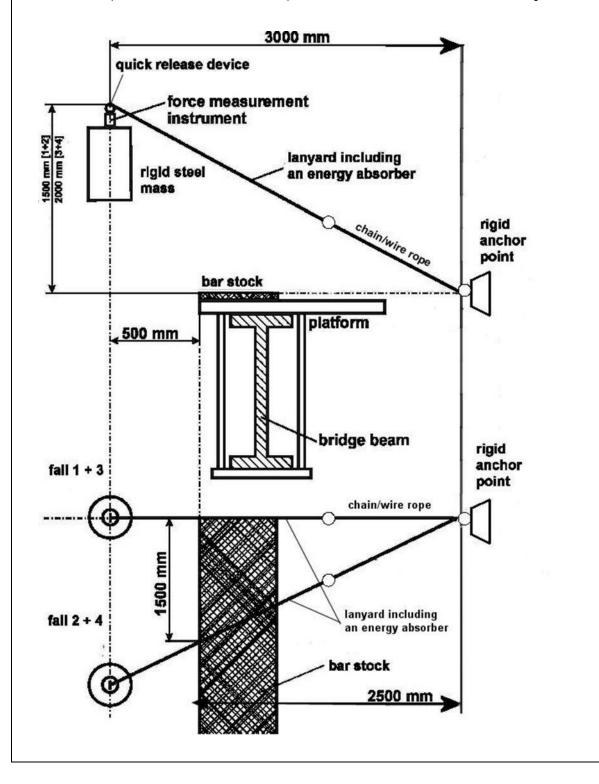
Additional information on marking:

- 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.
 - 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
 - o an edge protection should be mounted before the start of work or
 - you should contact the manufacturer.
 - 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°.
 - 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.
- 9. 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:			
What tests are necess	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

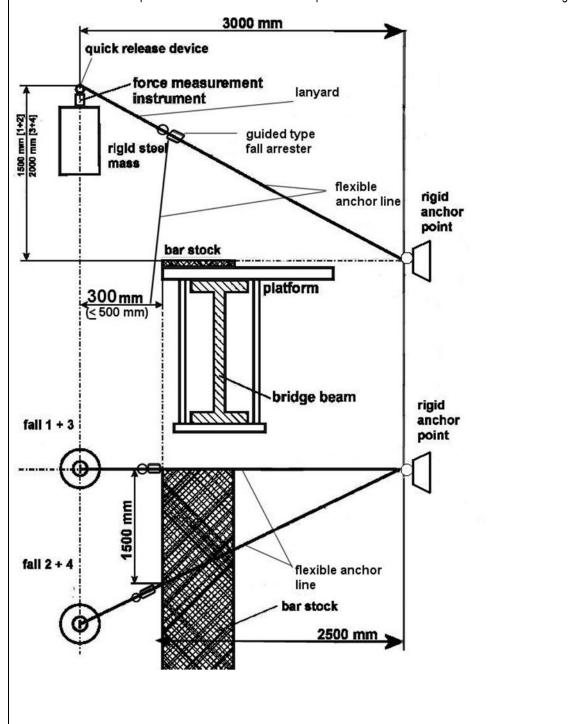
Additional information on marking:

- 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.
 - 6. 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

RFC	MO:	MEN	DAT	ION	FOR	USF

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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 Guidelin	nes	N: EN353-2:2002, EN	☐ Other:	
Article: Annex:	Clause:			
Key words:				
Guided type fall arrester, dynamic performance, non integra	al energy absorber, no	n integral lanyard		
Question:				
How to assess the dynamic performance of an EN 353-2 device that includes a non integral energy absorber or a non integral lanyard?				
Solution:				
An EN 353-2 device shall be tested in accordance with EN 364 Clause 5.5.2 or Clause 5.8.2 both with each energy absorber and/or lanyard that can be used in the flexible anchor line and/or connected to the guided type fall arrester and without any energy absorber or lanyard, as specified by the manufacturer in its instruction for use.				



PPE-R/11.083 Version 1

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



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Version 02

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



PPE-R/11.087 Version 1

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



PPE-R/11.088 Version 02

***	RECOMMENDA	ATION FOR USE	
Number of pages: 2		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/prEN: any EN on fall arrest if relevant	Other:
Article:	Annex:	Clause:	
Key words:			
Rope / Knots, technique	, end user, friction knots		
Question:			
Most fall protection systems subsequent training by	tems require a certain element of installation the end user.	(such as connecting various components) a	nd therefore rely on
However can Notified Bo making a spliced end on	odies assess products that require technique a rope,) ?	es to be implemented by the end user (e.g; d	ressing a specific knot,
Solution:			
Yes; but only if the end	user does not impact the construction of the		
product Examples			
be made by t • A termination and under C	that impacts the construction (e.g., spliced e 2/D production control	end on a rope) cannot be made by the end u	ser. It shall be certified
	against falls from a height that include frictio whole system: see the following test procedu		by the end user, can be
Note: the manufacturer harness)	can allow the end user to replace a compon	ent as a spare part (e.g. ventral attachment (using a knot on an arborist
Note: Examples for frict	ded in a PPE systems against falls from a tion hitches are: prusik, valdotain-tresse, diste different possible variations of these knots (e	el, michoacan, machard,	red friction hitches in this
1. General requiremen			
	define all intended modes of use and must re	, ,, ,	
All ystem components m	oust be finished and ready-to use products wi	itn pretabricated terminations.	

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

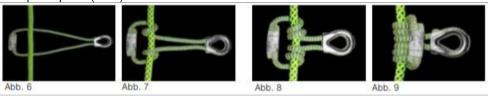
Each load bearing component that might be removable must have a marking, which states the correspondence to the whole system. Example: 'Component name 1' part of 'system name', 'Component name 2' part of 'system name', etc.

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, to	emperature test			
Question:				
How to understand a	articles 4.4.1 and 4.4.2 of EN 341:2011 as there	are some u	nclear requirements?	
Solution:				

4.4 Function

4.4.1 Classes A, B and C

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

When tested in accordance with 5.4.1, 5.4.2 and 5.4.3:

- 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 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;
- 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.



PPE-R/11.094 Version 2

	RECOMMENDA		V UOL	
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 354:2010	N: EN 358:1999, EN	Other:
Article:	Annex:	Clause:		
Key words:				
Pole choker, work pos	itioning lanyard			
Question:				
How should pole chok	ers (*) be assessed?			
Calution				
Solution: Pole chokers have to h	pe assessed as work positioning lanyard acco	ording to EN 3	358 or FN 354	
	sts shall be carried out using a representative	-		eter)
-	all require that the user needs a back-up syste			,
(*) D			Parameter and a section	
(*) Pole choker: double Example of Pole Chok	e adjustable webbing lanyard designed to be ι er:	used for climi	bing on wooden poles	
Example of Fole Chok	ы.			
	\			
	* \			
Y				
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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	

TEOOMINIERDAT		
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, EN 353-2 :2002, EN 360 :2002	Other:
Article: Annex: C	Clause: Art. 7 – i) – iii)	
Key words:		
Anchor device, type C, instructions for use, EN 360, EN 353-2		
Question:		
What shall the notified body require if the manufacturer claims on its in retractable fall arrester (EN 360) or guided type fall arrester including a		evice can be combined with
Solution:		
In application of article 7 point i) – iii), the manufacturer shall show to the type C anchor device and each claimed models of EN 360/353-2 PPE		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 be used on the type C anchor de	avice
2- Include specific warning about necessary clearance below th C anchor device.	• •	



PPE-R/11.098 Version 1

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



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 21.04.2018
	☑ Horizontal Committee 27.12.2018☑ EU PPE Working Group 29.11.2019
	EN/prEN: EN 795:2012,
Article: Annex: Cla	use:
Key words:	
Anchor device, static strength test, material, durability	
Question:	
Following EN 795:2012 and TS 16415:2013 (articles 5) static strength te with any load bearing element or component made from plastics?	st 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 s min	trength test should be carried out at (18 +1/0) kN for (3 +0,25/0)



PPE-R/11.104 Version 1

RECOMMENDATION FOR USE

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

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

Shuttles shall conform to following procedure:

A- Scope of use

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

Shuttles can be of the following types:

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

B- Applicable standard

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

C- Design requirements

General:

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

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

If removable, the sling shall be approved for Rope courses

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

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

Specific requirement for continuous belay shuttles:

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

Specific requirement for individual belay shuttles:

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

D- Tests requirements

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

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

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

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

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

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

Requirements:

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

Permanent deformation: no visible permanent deformation of the shuttle

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

3.1 Principle and test samples

The shuttle is dynamically tested on a steel tube.

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

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

3.2 Test structure calibration pre-test

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

3.3 Test method

The shuttle is installed on the steel tube

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

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

Release the rigid test mass and check requirements

3.4 Requirement

The shuttle shall not release the rigid test mass

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 o	f 7.5 10 ⁶ J		
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			



PPE-R/11.106

Version 02

Number of pages: 1	Approval stage : Approved on :
Origin : Vertical Group 11	 ✓ Vertical Group ✓ Horizontal Committee ✓ EU PPE Expert Group 18.11.2022
Question related to PPE Regulation PPE Guidelines EN/p	orEN: EN 360 :2002
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 5.3.8 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 retract in a controlled manner. 5.3.5.2 Extract (300 ± 10) mm of the retractable lanyard. Rotate the end terminattachment point ten full turns. Allow the lanyard to retract. The lanyard retraction controlled by hand resistance to prevent uncontrolled take-up of the lanyard by applicable, repeat the test for each direction claimed by the manufacturer	etractable lanyard(s) and allow the lanyard(s) to fully ation of the retractable lanyard or the RTFA housing on and any untwisting shall be unassisted and



PPE-R/11.108
Version 1

	RECOMMENDA	ATION FO	K UƏE	
Number of pages: 1			Approval stage :	Approved on :
Origin : Vertical Group 1	1 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 27.12.2018 29.11.2019
Question related to 🗵	PPE Regulation PPE Guidelines	⊠ EN/prE TS 16415:	N: EN 795:2012, 2013	Other:
Article:	Annex:	Clause:		
Key words:				
Anchor device, anchor p	oints			
Question:				
	12 and TS 16415:2013 no text describes ho erent attachment points. For instance if the			
Solution:				
For an anchor device wit	th 1 anchor point :			
Carry out the test accord	ling to EN 795 using a 100 kg test mass			
For an anchor device wit	th two (2) anchor points:			
	est according to EN 795 using a 100 kg test	mass conne	cted to the likely weakest point	if different
	est according to TS 16415 by connecting the			
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 a	according to TS 16415 by connecting the an	nchor points t	together using a suitable conne	ctor (*) 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
Question related to ☐ PPE Regulation ☐ PPE Guidelines ☐ EN/prE TS 16415::	N: EN 795:2012, 2013	Other:
Article: Annex: Clause:		
Key words: Anchor device, type C, requirement , low value		
Question: When testing a EN 795-TS16415 type C, what are load and deflection values rec	quirements 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% doe	s not apply	
2- Deflection measurement If the deflection on the span is less than 250 mm then the requirement 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✓ 29.11.2019
	☑ EN/prEN: EN795:2012, ☐ Other: S16415:2013
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 energy of the control of the contro	ergy absorber?
Solution: Two dynamic tests have to be carried out: Test 1: as described in EN 795 art. 5.5.3.2.2.1 for type C which incorporanchor point at the end of the longest span that meets with the shortes and loading) don't apply.	
Test2: as described in EN 795 art. 5.5.3.2.2.1 for other type C: "position Requirements of article 4.4.3.3 apply.	n 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 ✓ 21.04.2018 ✓ 27.12.2018 ✓ 29.11.2019
	☑ EN/prEN: EN 795:2012, ☐ Other: S 16415:2013
Article: Annex: C	lause:
Key words: Anchor device, type C, type A, post, fixing element	
Question: When they can be installed together, where is the limit between type C, 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 elem	
2- If the post/fixing element is removable from the type C shall it be test	ed as Type A?
Solution:	
Two dynamic tests have to be carried out:	
1- Yes, all extreme combinations of type C + post/fixing element that ar (example of combination that don't need to be tested: for a same design type C).	•
The specification of all post/fixing elements, including design, size and manufacturer and listed in the report	reference, shall be included in the information supplied by the
2- If the post/fixing element can be used as an anchor point without the	Type C then it should be tested as a Type A device.



PPE-R/11.112 Version 1

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 27.12.2018 29.11.2019
Question related to ☐ PPE Regulation ☐ PPE Guidelines ☐ EN/p TS 1641	rEN: EN 795 :2012, 5 :2013	☐ Other:
Article: Annex: Clause:		
Key words: Anchor device, type C, authorized people, lifeline, span		
Question: Can the number of authorized people on the Type C lifeline be different from the type C lifeline	he number on one span?	
Solution: No, they have to be the same. One span shall be tested with the maximum au	thorized number of users on the I	ifeline



PPE-R/11.113	
Version 1	

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 27.12.2018 29.11.2019
] EN/prEN: EN 795:2012, 3 16415 :2013	Other:
Article: Annex: Cla	ause:	
Key words: Anchor device, dynamic test, permanent deformation		
Question: Note: for dynamic test on anchor devices, the test mass shall be first low height of fall while it can lead to permanent deformation in the anchor de How to avoid unexpected permanent deformation that could occur on de mass?	evice.	·
Solution: Test shall not be carried out on an anchor device that has been permanent.	antly deformed before the test by the te	et mass suspension (100kg
or 200kg as in TS16415).	ently deformed before the test by the te	st mass suspension (rookg
Components that could deform can be locked or replaced by a rigid elen	nent.	
Note: to avoid insufficient preloading of the test lanyard, stitched test lan	yard can be used (see VG11 Recomme	endation for use 11.095)



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Version 3

Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Gro	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, mountai	ineering,	
Question:			
	able EN standard for these devices, how to as y or mountaineering?	ssess load sharing devices (e.g., rigging plates	s) used by a person for fall
Solution:			
Use UIAA 130:2021			



7. Corrosion resistance

CO-ORDINATION OF NOTIFIED BODIES PPE Regulation 2016/425

PPE-R/11.115 Version 1

RECOMMENDATION FOR USE

	RECOMMENDATION	FUR USE	
Number	of pages: 2	Approval stage :	Approved on :
Origin : \	ertical Group 11 'Protection against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Working Group	21.04.2018 27.12.2018 29.11.2019
Question	related to ☐ PPE Regulation ☐ PPE Guidelines ☐ EN	I/prEN:	☐ Other:
Article:	Annex: Clause	e:	
Key word	ds:		
Clamps,	rescue, evacuation, lifting, lowering		
Question	:		
How sha and eval	Il clamps that are claimed to be used in conjunction with devices for uated?	r the rescue or evacuation lifting and	d lowering process be tested
Solution:			
Requirer	nents:		
1.	General: The function test, static strength test and dynamic test has to be contegrated lanyard of an energy absorber, lanyard of a retractable manufacturer		
2.	Construction: Construction of the rescue / evacuation clamp has to be conform v	with clauses 4.1.1, 4.1.2, 4.1.4 and	4.1.5 of the EN 567:2013
3.	Function Check the function by lifting and lowering of a mass equivalent to of 1 m. Hold the mass for 3 minutes after each lifting and lowering to very cold in accordance with EN 354.		
4.	Static strength for the rescue / evacuation clamp including the The rescue / evacuation clamp including the lanyard/anchor line has according to EN 354). Permanent extension of max. 25 mm is according to EN 354.	as to withstand a load of 6kN for 3 i	minutes (test procedure
5.	Static strength for the rescue / evacuation clamp The rescue / evacuation clamp has to withstand for 3 minutes a lo (test procedure according to EN 353-2:2014 2002 or EN 12841:20		ad of the anchor line/lanyard
6	Dynamic strength		

Status: October 2023

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

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.

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



PPE-R/11.116

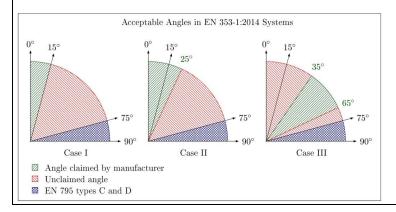
Version 2

RECOMMENDATION FOR USE

Number of pages: 1	Approval stage :	Approved on :
Origin : Vertical Group 11	✓ Vertical Group✓ Horizontal Committe✓ EU PPE Expert Group	
Question related to PPE Regulation PPE Guideline	s	☐ Other:
Article: Annex:	Clause:	
Key words: Guided type fall arrester including rigid anchor line; angles of	rigid anchor line	
Question: How to assess devices when the manufacturer claims the use than the standard values (+15° in forward and sideward directions).	0 7.	anchor 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 Gro	up 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/prE	N EN 341 :2011	☐ Other:
Article:	Annex:	Clause:		
Key words:				
Descender devices	for rescue; Function Test			
What is the sense o	f the test "wet and cold condition" (art.5.4.3) by i	mmerse the d	evice in water?	
Preliminary note: By immersing autor	matic descender devices in water (instead of spr	aying) these o	devices will normally fail this tes	st
	cender devices the wet and cold condition test ca not be conditioned according to the first 2 sente			ccount, automatic
Manufacturer's instr	ructions and Information must be clear stating that	at use in wet a	and cold conditions is not allow	ed with these devices.
EN 341 shall not ma	arked on the product nor in the instructions, unles	ss the device	satisfies EN 341:2011 art. 5.4.	3.



PPE-R/11.118 Version 1

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



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 <u>wire rope</u>, 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/prE	N: EN 353-1:2014	Other:
Article: Annex:	Clause:		
Key words:			
Function test, arrest distance			
Question:			
For function Tests, shall H_{LD} and H_{AD} requirement be met both or only	y one of the	m?	
Solution:			
H _{LD} and H _{AD} requirement shall be met both			



PPE-R/	11	1	22
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	21.06.2018 27.12.2018 29.11.2019
	☑ EN/prEN 61 :2002	I: EN 360 :2002, EN	Other:
Article: Annex: C	Clause:		
Key words: Retractable fall arrester, full body harness			
Question:			
How to assess a retractable type fall arrester which is attached to a full typical attachment point (e.g. a D-ring)?	body harno	ess by a specific adapter whicl	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 a	nd torso du	ummy instead of rigid mass	
Instruction for use should include compatible products and add sufficient	nt informati	on on how to connect the devi	ce.



PPE-R/11.123 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 360:2002, EN ☐ Other: 341:2011, EN 1496:2017
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 14	196 functions?
Solution: Testing should be based on relevant requirement from EN 360 and E	N 341 and/or EN 1496



PPE-R/11.124

Version 05

^	RECOMMENDA	ATION FO	R USE	
Number of pages: 2			Approval stage :	Approved on :
Origin : Vertical Grou	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		⊠ EN/prE	EN: EN 360:2002	Other:
Article:	Annex:	Clause:		
Key words:				
Retractable type fall	arresters, twin, horizontal use			
Question: How shall retractable body harness be ass	e type fall arresters ("RTFA") with 2 retractable lesessed?	anyards (two	o devices connected with an ac	lapter) 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				7.06.2021 1.10.2021 3.11.2022		
Question related to ☐ PPE Regulation ☐ PPE Guidelines ☐ EN/prEN: EN 892 +A1:2016, EN 1891:				☐ 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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PPE-R/11.127

Version 2

RECOMMENDATION FOR USE

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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 		.10.2021			
Question related to PPE Regulation PPE Guidelines EN/prE		EN: EN 361 :2002			Other:			
Article:	Annex:		Clause:					
Key words:								
Full body harness, ergonomic	tests							
Question:								
How to assess ergonomic requirement on full body harness?								

Solution:

1- Requirement:

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

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

2- Test Methodology

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

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

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

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

The test subjects shall be directly supervised throughout the procedure



PPE-R/11.129 Version 1

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\sim \star	RECOMMEND	ATION 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 🖂 PI	PE Regulation	⊠ EN/prE A1:2017	:N: EN 353-1:2014 +	☐ Other:
Article:	Annex:	Clause:		
Key words:				
Guided type fall arrester, c	losing mechanism			
Question:				
How to check the complete	e closure of the opening mechanism of a	guided type	fall arrester?	
information, there shall be	guided type fall arrester back onto the complete closure of the opening mechanter shall be such that it is not possible to	nism and the	self-locking fall arrest function	
Solution: During article 5.1.3 "ascending and descending test with two persons " both test persons shall remove and refit the guided type fall arrester on the rigid anchor line in accordance with the manufacturer's instructions and information. Carry out a visual check and verify that the opening mechanism closes completely after refitting the guided type fall arrester in or on the rigid anchor line and then perform a pre-use check in accordance with the manufacturer's instructions (see EN 365:2004, 4.2.2. k).				



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



PPE-R/11.13
Version 1

	RECOMMEND	DATION 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 4.1.2	
Solution:			
Yes			



PPE-R/11.132
Version 1

	RECOMMEND	DATION 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	13.06.2019 15.09.2019		
		EU PPE Expert Group	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	rated load more than 100kg?			
Solution: Yes, but instructions for use shall require only to use energy absorbing elements compatible with this maximum rated load. Reminder: energy absorbing element shall be tested according to RfU 11.062 or relevant EN standard.					



PPE-R/11.133	
Version 1	

	RECOMMEND	ATION FOR USE	
Number of pages: 1		Approval stage :	Approved on :
Origin : Vertical Group	11 'Protection against Falls from a Height'	✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	13.06.2019 15.09.2019 14.03.2022
Question related to	PPE Regulation PPE Guidelines	⊠ EN/prEN: EN 892:2012 +A1:2016, EN 1891:1998	☐ Other:
Article:	Annex:	Clause:	
Key words: Dynamic mountaineerin	ng rope, low stretch kernmantel rope, constru	uction	
Question:			
Should each construction EN 1891:1998 be teste	on (braiding,core yarns,) of dynamic moun d ?	taineering ropes EN 892:2012+A1:2016 or	low stretch kernmantel ropes
Solution: Yes			



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Version 03

RECOMMENDATION FOR USE

Number of pages: 1			age :	Approved on :	
Origin : Vertical Group 11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group		02/12/2021 30/04/2022 31/08/2023	
Question related to	PPE Regulation PPE Guidelines	☑ EN/prEN: EN 795:2 2010, EN 362 :2004, EN 12275:2013 EN 365 :20	N	☐ Other:	
Article:	Annex:	Clause:			
Key words:					
Swivel, use for work, in	ndustry, mountaineering				
Question:					
How to assess swivel	used by a person as a fall protection for ind	ustry or mountaineering?			
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/11.136

Version 1

* *	PPE Regu	ılation 2016/	425		
× * ×	RECOMMEN	DATION FO	R USE		
Number of pages: 1			Approval stage :		Approved on :
Origin : Vertical Group 11			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	9 0	7.10.2019 1.10.2021 8.11.2022
Question related to 🔀 P	PE Regulation	⊠ EN/prE	:N: EN 353-1 :2014		Other:
Article: 4.1.2.5	Annex:	Clause:			·
Question:	-1:2014 states "The connecting elemen				
Example: G T F A					

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

PPE	E-R/	11.	137
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Version 1

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Number of pages: 1	RECOMMEN	IDATION FO	Approval stage :		Approved on :	
Origin : Vertical Group 11			✓ Vertical Group✓ Horizontal Committee✓ EU PPE Expert Group	e 0	14.10.2020 01.10.2021 18.11.2022	
Question related to PF	PE Regulation PPE Guidelines	⊠ EN/pri :2017	EN: EN 353-1 :2014+A1		Other:	
Article:: 5.3.4.3 and Fig. 1	Article: : 5.3.4.3 and Fig. 11 Annex: Clause:			•		
11, which depicts the test Question: Which takes precedence, the	in the pre-release position, the test m arrangement, the test mass is not in cone text in clause 5.3.4.3 or the diagram	contact with the		e fall-arı	rester but in Figure	
Note: where an energy-abs unlocked position the rigid t	.3.4.3 takes precedence over the diagonal orbing element is relatively short the treat mass shall be in contact with any properties the position of the guided type fall arre	est shall be car	ried out so that: "with the gu	ided typ		



PPE-R/11.138

Version 1

Number o	of pages: 1		Approval stage :	Approved on :
Origin : V	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 word	s:			
Individual	safety systems, rope courses			
Question:				
How to in	terpret the various editorials errors noted in EN 17109:202	0?		
Solution:				
•	Article 4.3.4 refers to 5.3.5 method but should only refer to	5.3.5.1, 5.3	.5.1.2 and 5.3.5.1.3 as 5.3.5.1.	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 position	ons indicated	in the instructions for use shall	be tested. But 5.3.3 and
	5.3.4 tests have to be carried out in the normal position. A	rticle 5.3.1 sl	nould refer to 5.3.5	
•	Article 5.3.5.2 and 5.3.5.3 do not indicate how long the str	•	e applied (or if no	
	duration). VG11 decision: Apply the load for (3+0.1/-0) m Article 4.2 / 5.2 does not define which diameter the test sh		ı	
•	out. Proposal: minimum	iali be carriec	I	
•	Articles 6c and 7a: should refer to EN 17109:2020 and no	t 2019		
•	Annex B, Table B1: Number 14 should be EN 12277:201		2	



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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?					
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:					
a. Yes. As a component of the complete PPE, EN 12841:2006 and/or EN 341:2011 ropes shall be part of the module C2/D production control. Production has to guarantee that rope parameters stay inside tolerances, which guarantee					
acceptable performance for EN 12841:2006 and/or EN 341:2011 b. Complete PPE conforming to EN 12841:2006 and/or EN 341:2011 shall bear the CE marking but this is not mandatory to apply it on the rope itself					
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) identification(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 567:20	N: : EN 12841-B:2006, 013, EN 361:2002, 018, EN 813:2008,	Other:	
		EN 12277	:2015+A1 :2018		
Article:	Annex:	Clause:			
Key words:					
Rope clamp/Rope adjustment device used in harnesses					
Question: How to assess harnesses ind designed only for rope clamp	cluding a rope clamp/rope adjustmento/rope adjustmento/rope adjustment device?	t device or a s	pecific attachment point (e.g. s	mall size stitched loop)	

Solution:

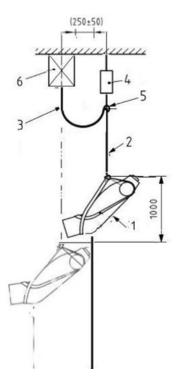
Harnesses including a rope clamp/rope adjustment device shall fulfil following requirements beyond PPE Regulation:

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

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

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

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



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

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



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Version 1

	REGOINMENDATION OR GOE					
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 12841	EN: : EN 358:2018, 1:2006	☐ 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 have contradictory requirements						
Note: this position is confirmed by TC160/WG3 (document TC160/WG3/N579)						