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

Regulation (EU) 2016/425

Vertical Group 1 - status in May 2023

Vertical Group 2 - status in May 2023

Vertical Group 4 - status in September 2021

Vertical Group 5 - status in September 2021

Vertical Group 8 - status in September 2021

Vertical Group 9 - status in April 2019

Vertical Group 10 - status in September 2021

Vertical Group 11 - status in May 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 of RfU PPE-R/	Version	Reference	Keywords	Approved by Vertical Group 1	Approved by Horizontal Committee	Endorsed by PPE Expert 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
01.004	01	EN 1384:1996 (+A1) & EN 1384 : 2012 clauses 3.10, 5.5 & 6.8	Helmets for equestrian activities, peak, deflection	21/04/18	21/04/18	29/11/19
01.006	01	Various	Kerbstone anvil	21/04/18	21/04/18	29/11/19
01.007	01	All	Test method standards	21/04/18	21/04/18	29/11/19
01.008	01	EN 443 : 2008	Retention system effectiveness, Pre-requisites	21/04/18	21/04/18	29/11/19
01.009	01	EN 443 : 2008	Shock absorption, Resistance to penetration	21/04/18	21/04/18	29/11/19
01.012	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	01	Various	Retention system, Fastening device	21/04/18	21/04/18	29/11/19
01.015	01	EN 1077:2007	Test area	21/04/18	21/04/18	29/11/19
01.016	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
01.025	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
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

Status: May 2023

Number of RfU PPE-R/	Version	Reference	Keywords	Approved by Vertical Group 1	Approved by Horizontal Committee	Endorsed by PPE Expert Group
01.032	01	EN 1384:2012	Test sequence, sample restoration	21/04/18	21/04/18	29/11/19
01.033	01	EN 14052:2012 + A1:2012	Resistance to penetration, helmet test support	21/04/18	21/04/18	29/11/19
01.036	01	EN 13484:2012	Extent of coverage	21/04/18	21/04/18	29/11/19
01.037	01	EN 1385:2012	Coverage	21/04/18	21/04/18	29/11/19
01.038	01	EN 1385:2012	Retention system effectiveness	21/04/18	21/04/18	29/11/19
01.039	01	EN 397:2012	Helmet shell, Materials, Marking	21/04/18	21/04/18	29/11/19
01.041	01	EN 1077: 2007 / EN 1078+ A1:2012 / EN 1385: 2012	Artificial ageing, ultraviolet irradiation	21/04/18	15/09/19	14/03/22
01.042	01	Various	Lateral crushing, deformation	21/04/18	15/09/19	14/03/22
01.043	01	EN 397:2012 + A1	Visor position, Testing	21/04/18	15/09/19	14/03/22
01.045	01	EN 397:2012 + A1	Internal vertical clearance, Internal vertical distance, Air supplied respirators	24/05/18	15/09/19	14/03/22
01.046	01	EN 50365:2002	Marking durability, marking legibility, marking location	24/05/18	15/09/19	14/03/22
01.047	01	EN16471:2014 & EN16473:2014	Flame resistance, Testing	24/05/18	23/09/20	14/03/22
01.049	01		Industrial safety helmets, increased ventilation	21/04/18	23/09/20	14/03/22
01.050	01	EN 1077:2007	Helmets for Alpine Skiers and Snowboarders with integrated speakers	21/04/18	23/09/20	14/03/22
01.056	01	EN16471:2014 & EN16473:2014	Coverage, materials	24/05/18	23/09/20	14/03/22

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.001 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Expert Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN 397:1995 (+A1) & EN 397:2012	☐ Other:
Article:	Annex:	Clause: 6.11.2	

Key words:

Industrial helmet, lateral deformation test, test procedure

Question:

In the case of helmets which include localized projections from the shell, e.g. rivets, is it permissible to use "bridging elements" so that the load is not applied directly to the projections?

Background: differing results in the lateral deformation test of one industrial helmet type had been reported for UTAC and BSI. Different location of the loading plates on the sides of the helmets turned out to be the reason for the discrepancy. Whereas UTAC located the loading plates directly on the shell, notwithstanding any localized projections such as rivets, BSI bridged the projections on the shell by means of wooden elements.

Solution:

No.

The test procedure in which the loading plates are located on the helmet itself (without any bridging elements) is the relevant one for the lateral deformation test. The formulation of chapter 6.11.2 in EN 397 does not allow any other interpretation.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.002 Version 1

Number of pages: 324	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/prEN: EN 812:2012	☐ Other:
Article:	Annex:	Clause: 4.7	

Key words:

Industrial bump caps, ventilation

Question:

Products may be designed with 'cut-outs' that extend upwards from the lower edge of the shell, such as those found at the rear of a bump cap designed with the appearance of a baseball cap or those designed to permit flexing of the shell for comfort or to accommodate different head sizes.

Should such cut-out features be considered as holes for ventilation purposes?

Solution:

No.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.004 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Expert Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN 1384:1996 & EN1384:2012	☐ Other:
Article:	Annex:	Clause:	

Key words:

Helmets for equestrian activities, peak, deflection

Question:

For the purpose of testing peak deflection, what should be considered a peak, because the definitions given are not clear?

This sheet relates to the following standards:

EN 1384:1996 (+A1) & EN 1384 : 2012 clauses 3.10, 5.5 & 6.8

Solution:

Limited protection to the eyes may be provided by an extension forward from the that part of the helmet which covers the head directly from above. Depending upon the construction of the helmet, such an extension may be considered to be, or not to be, a peak. It may be integral with, or detachable by the wearer from, the helmet.

In the case of helmets whose construction incorporates a shell fitted with protective padding, the extension is considered to be a peak if it is not made from the same material as the protective padding (that is, it is made from the same material of the shell). If the extension is made from the same material as the protective padding, it is considered not to be a peak.

In the case of helmets whose construction does not incorporate a shell (that is the helmet is predominantly made from shock absorbing material), the extension is considered not to be a peak if it is integral with the part of the helmet which covers the head directly from above.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.006 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Expert Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: 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	*clause 7.2.3*
EN 1077 : 2007	*clause 5.5 (refers to EN 13087-2 : 2000 cl. 5.3)*
EN 1078 : 1997 (+A1) & EN 1078 : 2012	*clause 5.4*
EN 1080 : 1997 (+A1) & EN 1080 :2013	*clause 5.4*
EN 13087-2 : 2000 (+A1) & EN 13087-2 : 2012	*clause 5.3*
EN 13781 : 2001 & EN 13781 : 2012	*clause 5.4*

Solution:

The kerbstone anvil simulates the pavement edge; this means it has to be considered of endless length.

For practical and technical reasons these anvils have a limited length as specified in the standards.

Test shall be performed in such a way that the edges of the anvil, as far as possible, do not affect the results (for example by directly contacting, during positioning, the headform).

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.007 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Expert Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: All ☐ Other:

Article: Annex: Clause:

Key words:

Test method standards

Question:

If a specific product standard does not cover all test specifications and possible interpretations and there is no direct reference to test method standards (EN13087 series) how should the Test Laboratory proceed in performing tests and verification?

Solution:

When test method is not fully described or clarified in the appropriate specific product standard and no reference to the test method standards are in the specific one, the Test Laboratory should refer to the existing appropriate test method standards (i.e. EN13087 series) to conduct tests.

However, if there is a difference between the procedure/equipment in the product standard and that in the test method standard, the method from the product standard shall take precedent.

Test Laboratories are encouraged to highlight individual situations in which information is missing from the product standard so that a separate Recommendation for Use sheet can be raised for each occurrence.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.008 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN 443 : 2008	☐ Other:
Article:	Annex:	Clause: 5.7	

Key words:

Retention system effectiveness, Pre-requisites

Question:

EN 13087-5 : 2000 clause 4 point f) requires the performance standard to specify the "direction of application of the force". EN 443 : 2008 clause 5.7 does not do this, so how shall the force be applied?

Solution:

The force shall be applied both to the front and rear in two separate tests, although the order is not critical.

The single sample specified by EN 443 : 2008 table B.1. shall be used for both tests.

The single sample must satisfy the requirements for both the front and rear tests in order that the model be considered acceptable.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.009 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 443 : 2008 ☐ Other:

Article: Annex: Clause: 5.4, 5.5

Key words:

Shock absorption, Resistance to penetration

Question:

In the case of helmets fitted or supplied with face protectors that are covered by the definitions of clause 3.18 "integral additional protective function" or clause 3.19 "non-integral protective functions", how should the face protector be positioned when testing to clause 4.2 "Shock absorption" or 4.3 "Resistance to penetration"?

Solution:

The face protector shall be placed in its "in-use" position.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.012 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: Various ☐ Other:

Article: Annex: Clause:

Key words:

Secondary impacts

Question:

Shall the results for secondary impacts, i.e. after bounce, be considered when making assessment?

Solution:

No.

Values obtained during secondary impacts, i.e. after bounce, shall be disregarded.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.013 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 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 does not sit on the jawbone, is it essential that the fastening device is capable of adjustment?

Solution:

No.

The primary purpose of this requirement is to ensure that the device does not sit on the jawbone.

Buckles positioned under the chin or around the jaw area would need to be moveable. Buckles positioned high on the side of the face that would not sit on the jawbone would not need to be moveable.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.014 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: Various ☐ Other:

Article: Annex: Clause:

Key words:

Penetration test block, radius

Question:

What is the correct radius for the penetration test block?

Solution:

The radius should be 65mm, with a tolerance of ±1mm.

Reason:

EN 1384 : 1996 (+A1), EN 1384 : 2012, EN 12492 : 2000 (+A1), EN 12492 : 2012 and EN 13087-3 : 2000 are standards that include specifications for a penetration test block.

(EN 13087-3 is referred to by EN 443 : 2008, EN 1077 : 2007, EN 14052 : 2005 & EN 14052 : 2012)

EN 1384 : 1996 (+A1) and EN 1384 : 2012 clause 6.5.2 specify a block with a radius of 65mm. They do not include a figure for the block, nor do they specify a diameter.

EN 12492 : 2000 (+A1) & EN 12492 : 2012 include a figure showing a block of radius 66.5mm with a diameter of 165mm. These dimensions are incompatible.

EN 13087-3 : 2000 figure 1 shows the radius of the test block as 65mm, but the diameter as 160mm. These dimensions are incompatible.

Either of the diameters stated would give a circumference larger than 495mm. The radius of 65mm would give a diameter that would permit the relevant sizes of helmet to be fitted and allow movement to test different positions.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.015 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 1077:2007 ☐ Other:

Article: Annex: Clause: 5.4

Key words:

Test area

Question:

How should the specified test area be marked on the helmet?

Considerations:

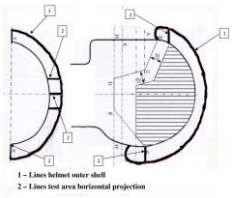
EN1077:2007 is the only standard (in the field of head protection) that defines the impact test area on the headform rather than on the helmet.

In order to perform tests, the test area has to be reproduced on the helmet. Depending upon interpretation of how this should be marked, this could lead to different test areas being marked on the helmet, and obviously to different test results.

Solution:

The test area should be projected horizontally from the headform to the outer helmet surface.

The 'corner' points of the test area shall be projected onto the helmet with lines laying on horizontal planes, parallel to reference plane; for side corners (points C, D, E) directed perpendicular to the vertical longitudinal plane, while for front and rear points (points A' and B) along the vertical longitudinal plane. Then the points marked on the helmet shall be connected by lines, using for example a flexible rule.



	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.016 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN 397:1995 & 2012 EN 812:1997 & 2012	☐ Other:
Article:	Annex:	Clause: EN 397 – 6.6.2, 6.7.2 / EN 812 – 6.5.2, 6.6.2	

Key words:

Shock absorption, Resistance to penetration, impact velocity

Question:

Is 0.5% the correct value for the maximum permitted difference between the actual impact velocity and the theoretical velocity for the stated drop height?

Solution:

No, the permitted difference should be 5% maximum.

0.5% is impractical and all other TC158 standards that specify a similar requirement state 5%.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.017 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 397:1995 & 2012 ☐ Other:

Article: Annex: Clause: 5.2.1

Key words:

Very low temperature, pre-conditioning

Question:

Is it necessary to perform shock absorption and penetration testing at -10°C if the very low temperature conditioning at -20°C or -30°C has been requested?

Solution:

Yes, because testing at -10°C is a mandatory requirement.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.019 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN 443:2008	☐ Other:
Article:	Annex:	Clause: 4.11 Flame resistance	

Key words:

Helmets for Fire Fighting; Flame resistance

Question:

Is it allowed to substitute the tests described in EN 443:2008 "Helmets for fire fighting in buildings and other structures" clauses 4.11 and 5.13 "flame resistance" by the tests described in EN 136:1998 clauses 7.6.3 and 8.5.2 during an Approval and EU-Certification however marking the helmet according to clause 6 of the standard with "EN443:2008".

Solution:

No.

The tests in EN 443:2008 clauses 4.11 and 5.13 are completely different from the tests in EN 136:1998 clauses 7.6.3 and 8.5.2 with regard to

- time of impact,
- distance of the burners and sample under test,
- burner flame,
- positioning of the test sample.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.021 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN 397:2012 + A1:2012	☐ Other:
Article:	Annex:	Clause: 5.2.5	

Key words:

Molten metal splash, assessment

Question:

Shall assessment be limited to the 50mm radius circle onto which the liquid metal is poured, or shall it apply to other areas of the helmet?

Solution:

Assessment shall apply to the shell of the helmet. With reference to the definition of clause 3.4, 'brim', the shell does not include a brim or gutter.

Reason:

The 50mm radius circle is just a target point for pouring of the metal.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.022 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 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 when defining certain test positions. The top of the helmet/bump cap is not defined, so what is the "top"?

Solution:

The top of the helmet/bump cap is that point on the outside surface of the helmet/bump cap which would lie above the central vertical axis of the headform, should the helmet/bump cap be fitted normally to a headform of appropriate size. This may, or may not, coincide with the highest point of the helmet/bump cap when fitted to the test headform.

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

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.023 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ 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: 5.6	

Key words:

Penetration testing, sample restraint

Question:

How much restraint shall be used to hold a sample in position for testing?

Solution:

As little restraint as possible shall be used, but enough to ensure that the test is performed correctly. In some cases, this may be a reasonably significant amount of restraint.

Rationale:

For some designs of helmet, rotating the helmet upon the test block in order to target different parts of the 50mm radius circle may result in the test block being able to pass between the harness so that the shell rests on the test block. This situation would not occur when such a product was fitted on to a person or a full test headform. This was agreed to be an unfair condition and that sufficient restraint strapping should be used to prevent such occurrence during the test.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.024 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN 397:2012 + A1:2012 and EN 12492:2012	☐ Other:
Article:	Annex:	Clause:	

Key words:

Dual-marking

Question:

Is it possible to approve a product dual-marked for compliance with EN397:2012 + 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 requirements of each standard. In order to do this, the product can be provided with two chin-straps, one to satisfy the retention system requirements of EN397 and the other to satisfy the retention system requirements of EN12492. In such a case, the chinstraps must be very clearly labelled as to the applicability for each standard and the user instructions shall state clearly how the helmet is to be configured in order to satisfy each standard.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.025 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN 397:2012 + A1:2012	☐ Other:
Article:	Annex:	Clause: 6.12.2	

Key words:

Molten metal test, orientation

Question:

In what orientation should the helmet and headform be placed when the test is performed?

Solution:

The headform should be vertical and the helmet fitted in a normal wearing position

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.026 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN 397:2012 + A1:2012	☐ Other:
Article:	Annex:	Clause: 4.9	

Key words:

Ventilation, area measurement, covers

Question:

Which area of ventilation should be assessed when the helmet includes hard covers/multiple layers and where the area of the aperture(s) in the cover/external layer is not the same area as the aperture(s) in the internal layer (shell)?

Solution:

The area of the smallest aperture(s) should be assessed, whether this/these be in the cover/external layer or in the internal layer.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.027 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 443:2008 ☐ Other:

Article: Annex: Clause: 5.4.1

Key words:

Shock absorption, headforms

Question:

For shock absorption testing of area 1a, should the headforms comply with the requirements of EN 960:2006, or is it acceptable to use headforms that comply only with EN 960:1994?

Solution:

The headforms should comply 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.

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.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.028 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN 443:2008	☐ Other:
Article:	Annex:	Clause: 5.8	

Key words:

Retention system strength, headforms

Question:

For retention system strength testing, should the headforms comply with the requirements of EN 960:2006, or is it acceptable to use headforms that comply only with EN 960:1994?

Solution:

The headforms should comply with EN960:2006.

Rationale:

EN 443:2008 clause 5.8 requires testing to be performed in accordance with EN 13087-5:2000. EN 13087-5:2000 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.

Therefore, the interpretation has been made that testing should be performed in accordance with EN 13087-5:2000, but using equivalent headform sizes complying with EN 960:2006.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.029 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Expert Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 812:2012 ☐ Other:

Article: Annex: Clause: 7.2.3 d)

Key words:

Marking

Question:

In clause 7.2.3 d), is the reference to clause 7.1 correct?

Solution:

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 to be explained. Clause 7.1 specifies the general markings, such as 'number of the European Standard', and requiring the significance of such markings to be explained seems illogical.

EN 397:2012 + A1:2012 clause 7.2.3 d) includes a very similar requirement, but instead it is the optional markings for which the significance must be explained.

It has been interpreted that the requirement in EN 812 was intended to be of a similar to that in EN 397.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.030 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ 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 includes settings that would reduce the area of ventilation to less than the minimum area specified?

Solution:

Yes. Ventilation features shall be adjusted to their maximum opening when measurements are taken.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.031 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN1384:2012	☐ Other:
Article:	Annex:	Clause: 4.1	

Key words:

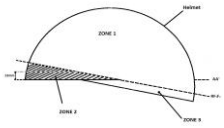
Thickness measurement, Area of protection

Question:

For measurement of thickness of protective padding in the area of protection but outside of the test area, where should this measurement be made?

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.



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).

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.032 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN 1384:2012	☐ Other:
Article:	Annex:	Clause: 6.2	

Key words:

Test sequence, sample restoration

Question:

Is it acceptable to restore samples following reversible damage before performing the next test in the test sequence?

Solution:

No, samples should be tested without restoration.

Rationale:

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.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.033 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN 14052:2012 + A1:2012	☐ Other:
Article:	Annex:	Clause: 5.2.2	

Key words:

Resistance to penetration, helmet test support

Question:

Is the sample tested on a headform, as suggested by clause 5.2.2?

Solution:

No, the sample is tested on the test block specified by EN 13087-3.

Rationale:

It has been interpreted that reference to a headform was an editorial error.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.036 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 13484:2012 ☐ Other:

Article: Annex: Clause: Figure 2

Key words:

Extent of coverage

Question:

Is the dimension of 25,5mm 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, but also behind the vertical transverse plane.

This is in contradiction, because 25,5mm behind point D would be in front of the vertical transverse plane.

EN 1077:2007 figure 1 is very similar and shows point E positioned 25,5 mm behind the vertical transverse plane.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.037 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 1385:2012 ☐ Other:

Article: Annex: Clause: Clause 5.2 & Figure 1

Key words:

Coverage

Question:

Should point C be the mid-point of A-Z when measured over the surface of the headform, or when projected from the side?

Solution:

Point C should be the mid-point of A-Z when measured over the surface of the headform.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.038 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 1385:2012 ☐ Other:

Article: Annex: Clause: Clause 7.8 & Figure 4

Key words:

Retention system effectiveness

Question:

In figure 4, where should the 600mm vertical dimension be measured from?

Solution:

The 600mm should be measured upwards from the reference plane.

Rationale:

With reference to EN 1078:2012 figure 5, an AA line was marked to show a section in the drawing.

The AA line was marked erroneously in figure 4 of EN 1385, as no section was included in the drawing. All other standards that include this test require the 600mm vertical dimension to extend upwards from the reference plane.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.039 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 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 components of different materials, what is the shell for which the abbreviation of the material shall be marked?

Solution:

The shell shall be considered to be the predominant component of the exterior of the helmet and an abbreviation for the material of that predominant component shall be marked.

Abbreviations for the materials of other components may also be marked, however, the abbreviation used must match the material of the component upon which it is marked.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.041 Version 1

Number of pages: 1	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 15.09.2019 ☒ EU PPE Expert Group 14.03.2022

Question related to ☐ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: EN 1077: 2007 / EN 1078+ A1:2012 / EN 1385: 2012 ☐ Other:

Article: Annex: Clause: See below

Key words:

Artificial ageing, ultraviolet irradiation

Question:

The following standards/clauses specify the use of a 125W xenon-filled quartz lamp for 48h at a distance of 250mm:

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.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.042 Version 1

Number of pages: 1	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 15.09.2019 ☒ EU PPE Expert Group 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 tested for lateral deformation/crushing with the visor in the stowed or deployed position?

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 second position.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.043 Version 1

Number of pages: 1	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 15.09.2019 ☒ EU PPE Working Group 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, between the shell and the harness.

Should the visor be stowed or deployed during testing?

Solution:

Testing should be performed as follows:

Internal vertical distance - deployed

Internal vertical clearance - if the visor does not seal off the air space above it (i.e. restricting ventilation), then test with the visor deployed and subtract the thickness of the visor. If the visor seals off the area, then measure with the visor stowed.

Shock absorption - test with the visor in BOTH positions, but not repeating tests on the same sample

Penetration - deployed

Lateral deformation - see sheet 01.042

Molten metal splash - deployed

Electrical insulation - include the visor as required by each test.

When not specified above, it is considered that the position of the visor does not affect testing

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.045 Version 1

Number of pages: 1	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 24.05.2018 ☒ Horizontal Committee 15.09.2019 ☒ EU PPE Expert Group 14.03.2022

Question related to ☐ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: EN 397:2012 + A1 ☐ Other:

Article: Annex: Clause: 4.4

Key words:

Internal vertical clearance, Internal vertical distance, Air supplied respirators

Question:

Powered or compressed air supplied respiratory protective devices (RPD) incorporating a helmet can include ducts passing over the top of the head.

In this case, is the assessment of Internal Vertical Clearance and Internal Vertical Distance appropriate for such devices?

Solution:

Internal vertical clearance - NO.

Internal vertical distance - YES, but the duct could be removed for testing.

Rationale:

Internal vertical clearance - EN397 clause 3.14 includes a note that indicates the specification relates to ventilation. VG1 considers that this relates to passive ventilation and cooling. Powered or compressed air RPD are designed to prevent the ingress of ambient air, but do instead provide either filtered air or compressed air which is delivered to the wearer, therefore providing active ventilation and cooling.

Therefore, the test can be considered as not applicable to such products.

Internal vertical distance - VG1 considers that whilst the requirement is applicable to such products, the duct could be removed for the purpose of the measurement.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.046 Version 1

Number of pages: 1	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 24.05.2018 ☒ Horizontal Committee 15.09.2019 ☒ EU PPE Expert Group 14.03.2022

Question related to ☐ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: EN 50365:2002 ☐ Other:

Article: Annex: Clause: 5.4.2

Key words:

Marking durability, marking legibility, marking location

Question:

Clause 5.4.2 specifies that the marking shall be located on the "bottom of the helmet shell peak".

What should be done when the product has a small peak or does not include a peak?

Solution:

VG1 considered that marking visibility and legibility were the priority, rather than location.

In such cases, the marking may be located anywhere on the helmet, providing that the marking is visible without the need to dismantle the helmet or move other components out of the way, even temporarily, to view the marking. Marking shall respect the minimum size required by the standard.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.047 Version 1

Number of pages: 1	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 24.05.2018 ☒ Horizontal Committee 23.09.2020 ☒ EU PPE Expert Group 14.03.2022

Question related to ☐ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: EN16471:2014 & EN16473:2014 ☐ Other:

Article: Annex: Clause: 5.6/5.7

Key words:

Flame resistance, Testing

Question:

How shall the flame resistance test be performed?

Solution:

The following points shall be considered:

1. All externally exposed materials of the shell shall be tested.
2. In the case of the retention system, testing can include up to the edge of any relevant component.
3. The test is an assessment of material and design, so whenever possible, actual components shall be tested. This applies to accessories too.
4. Following 50°C pre-conditioning, the samples shall be allowed to return to ambient condition before testing.
5. The standard specifies requirements of the helmet shell, retention system, accessories and non-integral additional protective devices. The standard does not specify what is to be done for integral protective devices, such as integral faceshields. Such parts should be tested as per the requirements for accessories and non-integral additional protective devices.
6. When testing the shell, the instruction not to test within 5mm of an edge is deemed to include edges created by ventilation features.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.049 Version 1

Number of pages: 1	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 23.09.2020 ☒ EU PPE Expert Group 14.03.2022

Question related to ☐ PPE Regulation ☐ PPE Guidelines ☐ EN/prEN: ☐ Other:

Article: Annex: Clause:

Key words:

Industrial safety helmets, increased ventilation

Question:

Industrial helmets which have ventilation greater than that permitted by EN397:2012+A1:2012 clause 4.9, are required in certain work sectors (e.g. forestry) to avoid dangers associated with the accumulation of heat under the helmet during high temperature and hard work.

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 requires that the product marking shall not include EN397.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.050 Version 1

Number of pages: 1	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 23.09.2020 ☒ EU PPE Expert Group 14.03.2022

Question related to ☐ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: EN 1077:2007 ☐ Other:

Article: Annex: Clause: 4.2.1

Key words:

Helmets for Alpine Skiers and Snowboarders with integrated speakers

Question:

EN1077 clause 4,2,1 includes a note that "*Helmets should…..not 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.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/01.056 Version 1

Number of pages: 1	Approval stage : Approved on :
Origin : Vertical Group 1	☒ Vertical Group 24.05.2018 ☒ Horizontal Committee 23.09.2020 ☒ EU PPE Expert Group 14.03.2022

Question related to ☐ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: EN16471:2014 & EN16473:2014 ☐ Other:

Article: Annex: Clause: 5.1

Key words:

Coverage, materials

Question:

Must the required coverage of the area situated above plane AA' be provided by the shell material (only)?

Solution:

No, coverage may be provided by other materials, so long as the part providing the coverage was integral to the helmet.

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 of RfU PPE-R/	Version	Reference	Keywords	Approved by Vertical Group 2	Approved by Horizontal Committee	Endorsed by PPE Expert Group
02.003	01	All standards	Variations, conformity	21.04.2018	21.04.2018	29.11.2019
02.015	01	Standards including IL/TIL tests	Test panel, total inward leakage testing (TIL), inward leakage testing (IL)	21.04.2018	21.04.2018	29.11.2019
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
02.046	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/A2:2008	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/A1:2008	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/A1:2009	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			

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/02.003 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 2	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 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 filters.

How many tests should be performed?

Solution:

Perform as many tests as needed to verify the conformity of all elements in the different versions of the equipment also perform tests to verify the conformity of the complete equipment.

Comment:

This suggestion was made that Notified Bodies should make their own decisions to establish the same testing procedures for all testhouses.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/02.015 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 2	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☐ EN/prEN: Standards including IL/TIL tests ☐ Other:

Article: Annex: Clause:

Key words: Test panel, total inward leakage testing (TIL), inward leakage testing (IL)

Question:

For (total) inward leakage testing the EN standards of RPD typically require a test panel of 10 persons.

If the RPD is submitted in several sizes, should a test house select the test panel to ensure that all sizes have been tested?

Solution:

In the case of an RPD being submitted for type examination in more than one size then the test panel should be arranged so that all sizes are tested for inward leakage.

Sufficient specimens shall be provided to enable a total of 10 IL / TIL tests to be performed.

It may not be possible to test all sizes of RPD.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/02.018 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 2	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 149:2001 ☐ Other:

Article: Annex: Clause:

Key words: Modified PPE

Question:

If an existing, certified, filtering facepiece (EN 149:2001) is modified by adding an exhalation valve, can a reduced panel (fewer tests subjects) for total inward leakage testing be used to assess compliance of the modified product?

Solution:

No, it is not possible to reduce the number of tests because the additional exhalation valve has a noticeable influence on the expected performance.

Where an exhalation valve is added to a certified filtering half mask (EN 149:2001) the product is considered as a new model.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/02.027 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 2	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 136:1998 ☐ Other:

Article: Annex: Clause: Requirements § 7.6 testing § 8.5 & 8.13

Key words:

Full face mask, flammability, head harness

Question:

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 failure?

Q4 May the mask be removed from the head form between the flammability test and the leak tightness test?

Q5 If a product satisfies the post-flammability leak tightness test, even with mechanical damage (which may include breakage) to the head harness, is this a failure?

Solution:

A1 No.

A2 The laboratory shall decide on the appropriate orientations to ensure that all relevant components, with the exception of the head harness, are exposed directly. Three samples shall be tested, with a new orientation for each sample.

A3 Yes. If burning of the head harness for more than 5s results from indirect exposure, then this is a failure.

A4 Yes because this is the practice of the majority of the test houses.

A5 No.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/02.036 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 2	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☒ PPE Regulation ☒ EN/prEN: 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.

b) Where the components of a diving regulator are designed to be replaced by the user, the manufacturer shall provide clear guidance on how this is performed and the need for any subsequent recalibration.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/02.043 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 2	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 137:2006 ☐ Other:

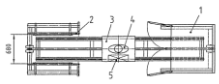
Article: Annex: Clause:

Key words: Respiratory Protective Equipments, flame engulfment test, bulky devices

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.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/02.044 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 2	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 13794:2002, EN 13274-2:2001 ☐ Other:

Article: Annex: Clause:

Key words: Respiratory Protective Equipments, practical performance tests

Question:

EN 13794:2002 refers to wrong activities in the test method standard EN 13274-2:2001.

What are the correct references?

Solution:

Replace in clause 7.16.2.2 of EN 13794:2002 the numbers 16, 20, 17, 18 by 7, 9, 13, 8.

Replace in clause 7.16.2.3 of EN 13794:2002 the number 16 by 7.

Replace in clause 7.16.3 of EN 13794:2002 the number 15 by 1.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/02.046 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 2	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 13794:2002 ☐ Other:

Article: Annex: Clause:

Key words: Self-contained closed-circuit breathing apparatus for escape (SCCBA); Carbon-dioxide (CO_2) content

Question:

Why shall the requirement in EN 13794:2002, clause 6.19.3, “After the rated working duration and up to a breathing resistance of 35 mbar the CO_2 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 paragraph would be inserted after the first sentence in clause 6.19.2, 2nd paragraph so that the wording

“After the rated working duration and up to a breathing resistance of 35 mbar the CO_2 content shall not exceed 3.0 percent by volume” clearly applies to all self-contained closed-circuit breathing apparatus for escape (SCCBA).

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”.

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 CO_2 is a risk for the user, however.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/02.047 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 2	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 12941:1998/A2:2008 ☐ Other:

Article: Annex: Clause:

Key words: Powered helmet/hood, filter connection

Question:

EN 12941:1998/A2:2008 requires that a hood/helmet without integrated blower must not contain a standard thread according to EN 148-1 and that the system is designed in such a way that it shall not be possible to connect a filter directly to the hood/helmet. Does the understanding of “directly” also exclude a design where a connection of a filter to a hood/helmet can be done by a hose bypassing the blower?

Solution:

The breathing hose is considered as an extension of the hood/helmet and therefore the thread restrictions shall be applied also to the end of the breathing hose (see clause 6.3.1 in EN 12941:1998/A2:2008)

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/02.048 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 2	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: All standards ☐ Other:

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 apply.

If the test description in the device standard is misleading/imprecise/incomplete the test standard could give clarification.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/02.049 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 2	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 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 Devices 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 consideration of the requirements of children.

Certification would be possible according to just the PPE regulation.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/02.051 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 2	☒ Vertical Group 21/04/2018 ☒ Horizontal Committee 21/04/2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 140:1998 ☐ Other:

Article: Annex: Clause: 6.12.1

Key words: Valves, replacement

Question:

Must valve assemblies be able to be replaced as required by clause 6.12.1?

(The wording of clauses 6.9 and 6.12.1 seem incompatible in the case of integral components of inhalation and exhalation valves.)

Solution:

No. If any components of valve assemblies are not intended by the manufacturer to be replaced, that is acceptable.

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.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/02.054 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 2	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 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 volume so that an adjacent colleague would be able to hear your words.

You should not introduce prolonged pauses into the speaking, except when breathing.

The exercise will require increased effort.

Whilst your breathing may follow punctuation of text, you are free to breathe more frequently.

It is not intended that you should be over-exerted and struggling to breathe during the exercise.”

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/02.055 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 2	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 14387:2004/A1:2008 ☐ Other:

Article: Annex: Clause: 8.3

Key words: Marking, filter packaging

Question:

Clause 8.3 specifies “The filter package shall be marked at least with the following information:”

Upon which part of the filter package should the markings be given?

Solution:

The marking should be applied to the smallest commercially available package.

It is accepted that the smallest commercially available package is not always the most immediate packaging.

Reason:

Other standards that include similar requirements, e.g. EN 143:2000 clause 9.4, refer to marking of the smallest commercially available packaging.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/02.058 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 2	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: All Standards ☐ Other:

Article: Annex: Clause:

Key words: Reporting, Test results

Question:

Is it necessary to report measurement values in addition to reporting the assessment for each clause?

Solution:

Yes.

The values used to determine the assessment should be reported.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/02.059 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 2	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 137:2006 ☐ Other:

Article: Annex: Clause: 7.4.1.1 & 7.4.1.2

Key words: Resistance to temperature

Question:

In the case of apparatus incorporating wrapped composite pressure vessels, does the storage time of 12 hours apply to the whole apparatus, or just to the cylinder(s)?

Solution:

The storage time applies to the whole apparatus.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/02.060 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 2	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 137:2006 ☐ Other:

Article: Annex: Clause: 6.11.1

Key words: Temperature performance

Question:

If the apparatus conforms to the requirements for breathing resistance, can other defects result in the apparatus being considered to have malfunctioned and therefore not to have operated 'trouble-free'?

Solution:

Yes.

If the warning device activates during the test at pressures above the normal expected activation pressure, the apparatus should be considered to have malfunctioned and therefore not to have operated 'trouble free'.

If leaks are detectable (even by hand), the apparatus should be considered to have malfunctioned and therefore not to have operated 'trouble-free'.

This is not intended as an exhaustive list as other malfunctions may be observed that are symptomatic of the apparatus not operating 'trouble-free'.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/02.061 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 2	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 149:2001/A1:2009
EN 1827:1999/A1:2009 ☐ Other:

Article: Annex: Clause:

Key words: Choice of standard

Question:

Are there situations in which both EN 149:2001/A1:2009 or EN 1827:1999/A1:2009 could be considered an appropriate choice of standard?

Solution:

When taking into account the scope and description of EN 149:2001/A1:2009 and EN 1827:1999/A1:2009, in the circumstance that all of the following apply, both standards could be considered appropriate:

The mask consists substantially, but not entirely, of filter material

The mask does not include inhalation valves.

The mask includes a re-usable frame/grid to hold the filter

The harness is attached to the re-usable frame/grid

The filter protects against particles only

The filters are separable from the re-usable frame/grid

The filters are replaceable

The filters are designed for a maximum of single shift use.

It should be noted that the filter may or may not form the primary seal against the face and exhalation valve(s) may or may not be included.

Whichever standard is chosen, the product shall satisfy all of the relevant requirements of the chosen standard.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/02.062 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 2	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 143:2001/A1:2006 ☐ Other:

Article: Annex: Clause:

Key words: Filter, clogging, penetration test

Question:

In EN143 after the clogging test the penetration test has to be performed. In the standard it is not clear what the testing time is.

a) test until 120 mg loading of aerosol (NaCl and paraffin oil)

b) or the penetration is measured as the average over a time of (30±3)s, 3 min after the start of the test

When and how long should the penetration be measured?

Solution:

The penetration after the clogging is measured as the average over a time of (30±3)s, 3 min after the start.

The penetration test before the clogging is measured until 120 mg loading of aerosol. So after the clogging it is sufficient to measure the penetration for three minutes.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/02.063 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 2	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: 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 EN 14387:2008 including a Carbon monoxide (CO) marking according to another standard than EN 14387:2008?

Solution:

EN 14387:2008 states the Scope “Filters for use against CO are excluded from this standard.”

A mixed marking is not possible.

An additional, clearly separated marking on the filter is possible.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/02.073 Version 1

Number of pages: 1	Approval stage : Approved on :
Origin : VG2	☒ Vertical Group 08.08.2019 ☒ Horizontal Committee 15.09.2019 ☒ EU PPE Expert Group 14.03.2022

Question related to ☐ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: EN 14594:2018 ☐ Other:

Article: Annex: Clause: 6.10.2

Key words: Compressed air supply tube, Resistance to kinking

Question:

A/ The initial starting position of the hose clamps appears inconsistent between Figures 5, 6 and Figure 7. What is the correct starting position nof the hose clamps?

B/ There appears to be no reference to how quickly the hose is straightened. What is the time duration of the test?

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.

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 of RfU PPE-R/	Version	Reference	Keywords	Approved by Vertical Group 4	Approved by Horizontal Committee	Endorsed by PPE Expert Group
04.001	01	EN 352-1:2002/ 13819-1:2002	Earmuffs with different wearing modes, headband force	21.04.2018	21.04.2018	29.11.2019
04.006	01	EN 352 (all parts), 13819-2	HPD of particular size, sound attenuation measurement	21.04.2018	21.04.2018	29.11.2019
04.007	01	EN 13819-1:2002	Ear-muffs, drop test	21.04.2018	21.04.2018	29.11.2019
04.008	01	EN 13819-2:2002	Sound attenuation, earplugs in different colours	21.04.2018	21.04.2018	29.11.2019
04.009	01	EN 13819-2:2002	Sound attenuation, custom moulded earplugs	21.04.2018	21.04.2018	29.11.2019
04.010	01	EN 352-2:2002	Corded custom moulded earplugs, corded earplugs, earplugs	21.04.2018	21.04.2018	29.11.2019
04.012	01	EN 352-3:2002	Helmet-mounted earmuffs	21.04.2018	21.04.2018	29.11.2019
04.015	01	EN 352-4:2001/13819-2:2002	Level-dependent earmuffs, MIRE, measurement noise, volume control	21.04.2018	21.04.2018	29.11.2019
04.017	01	EN 352-2:2002	Custom moulded earplugs	21.04.2018	21.04.2018	29.11.2019
04.019	01	EN 352-4:2001, 352-8:2008	Level-dependent earmuffs with integrated broadcast-receiver	21.04.2018	21.04.2018	29.11.2019
04.022	01	EN 352-6/-8/-11:2002	Hearing protection device with audio communication	21.04.2018	21.04.2018	29.11.2019
04.027	01	EN 352-8:2008	Wireless complete hearing protection systems with reproduced sound for entertainment	21.04.2018	21.04.2018	29.11.2019
04.029	02	EN 352-3:2002, 13819-1:2002	Adjustability and size-ranges for ear-muffs attached to an industrial safety helmet	02.10.2019	23.09.2020	29.11.2019
04.036	01	EN 13819-2:2002	Insertion loss, asymmetric design, electronic earmuffs	21.04.2018	21.04.2018	29.11.2019
04.037	01	EN 13819-1:2002	Nominal size designation, flanged earplugs	21.04.2018	21.04.2018	29.11.2019
04.038	01	EN 352-4:2001 EN 352-7:2002	Level dependent earmuff/earplugs, minimum criterion levels	21.04.2018	21.04.2018	29.11.2019
04.039	01	PPE Regulation	Earplugs, special use, risk in water	21.04.2018	21.04.2018	29.11.2019
04.040	01	EN 352-7:2002	Earplugs, non-passive earplugs, special use, impulse noise	21.04.2018	21.04.2018	29.11.2019
04.041	01	EN 352-6:2002	Calculation of mean electrical input level, earmuffs with electrical audio input	21.04.2018	21.04.2018	29.11.2019
04.042	01	EN 352-2:2002	Banded earplugs worn under the chin, test dimension for sizing	21.04.2018	21.04.2018	29.11.2019

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
04.051	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

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.001 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG 4 Hearing protection	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 352-1:2002/ 13819-1:2002 ☐ Other:

Article: Annex: Clause: 4.3.8 of EN 352-1, 4.4 of EN 13819-1

Key words:

Earmuffs with different wearing modes, headband force

Question:

The test procedure (measurement of headband force) for earmuffs in different wearing modes has not been specified in sufficient details in EN 352-1 and EN 13819-1. How shall the testing of 'headband force' and 'change of headband force' be performed for earmuffs with different wearing modes?

Solution:

1. When the change in headband force is checked during mechanical tests, the tests shall be performed only with one headband mode.
2. When measurements of the headband force have to be repeated the earmuff shall be allowed to recover for at least 4 hours.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.006 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG 4 Hearing protection	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN 352 (all parts), 13819-2	☒ Other: ISO 4869-1
Article:	Annex:	Clause: 4.2 (of 13819-2:2002)	

Key words:

HPD of particular size, sound attenuation measurement

Question:

How to test hearing 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) under EN 352 (all parts) are to be tested, the following protocol should be used:

In the case of an HPD which does not fit all size ranges given in the standard, each test subject shall be asked if the specimen fits. If it does, the test shall be performed. If it does not, the subject shall be rejected from the panel and replacement provided.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.007 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG 4 Hearing protection	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 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 cushions and/or liners should be removed before examination and then replaced.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.008 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG 4 Hearing protection	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 13819-2:2002 ☒ Other: ISO 4869-1

Article: Annex: Clause: 4.2

Key words:

Sound attenuation, earplugs in different colours

Question:

Shall sound attenuation measurements be repeated in case an earplug is supplied in different colours?

Solution:

If possible, one measurement should be performed and the samples used for that measurement should include all colours.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.009 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG 4 Hearing protection	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 13819-2:2002 ☒ Other: ISO 4869-1

Article: Annex: Clause: 4.2

Key words:

Sound attenuation, custom moulded earplugs

Question:

Some types of custom moulded earplugs are offered with a special cream intended to ease the insertion of the earplug into the ear-canal.

Shall sound attenuation measurements be performed using such cream?

Solution:

The sound attenuation measurements shall be performed without the use of such cream.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.010 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG 4 Hearing protection (submitted by BGIA)	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☒ PPE Regulation ☒ EN/prEN: EN 352-2:2002 ☐ Other:

Article: Annex: II, 1.2.1 Clause:

Key words:

Corded custom moulded earplugs, corded earplugs, earplugs

Question:

By sudden and fast removal of earplugs ear drum ruptures occurred, especially when the cord of corded earplugs was used to remove the earplugs out of the ear canal. What should notified bodies require from the manufacturer to avoid this?

Solution:

The manufacturer should add a warning to the user information: “Warning: Sudden or fast removal of the earplugs out of the ear canal may damage the ear drum.”

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.012 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG 4 Hearing protection	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 352-3:2002 ☐ Other:

Article: Annex: Clause: 4.3.4

Key words:

Helmet-mounted earmuffs

Question:

A helmet-earmuff combination fulfilling the requirements "adjustability" for M- and L-size has a headband force < 14 N for the M-size, but > 14 N for the L-size. Can this combination be tested and sold as an M-size combination only?

Solution:

It was agreed that such a combination can be tested and sold as an M-size combination only.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.015 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG 4 Hearing protection	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN 352-4:2001/13819-2:2002	☒ Other: ISO 4869-4
Article:	Annex:	Clause: ... / 4.3.3	

Key words:

Level-dependent earmuffs, MIRE, measurement noise, volume control

Question:

1 Which test method should be used for the testing? Should MIRE (microphone in real ear) or HATS (head and torso simulator) or ATF (acoustic test fixture) technique be used?

2 Which tolerances shall be aimed at for the generation of the L-orientated, M- , and H-orientated noise described in EN 352-4?

3 Which adjustment of the volume control shall be used for the testing of the level-dependent function of the earmuff?

Solution:

1 The MIRE-technique as described in Annex B of EN 352-4:2001 should be used. In the area of the concha, the microphone, including supporting elements and electrical leads, shall occupy an area not exceeding 25 mm² in the plane perpendicular towards the centre axis of the ear canal (this differs from EN ISO 11904-1). The microphone position shown in Figure 1 a) of EN ISO 11904-1:2002 shall be used, i.e. open ear canal and the port of the microphone shows towards the ear drum and the position is in between the ear canal entrance and the ear drum, preferably near by the ear canal entrance in a distance of a few mm.

2 M-noise: L_C-L_A = (+ 2 ± 0,2) dB; H-orientated noise: L_C-L_A = $-1.2^{+0.1}_{-0.2}$ dB; L-orientated noise: L_C – L_A = $+6^{+0.4}_{-0.2}$ dB. Measure in one-third-octave bands and calculate the L_C – L_A value.

3 Adjust to maximum volume.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.017 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG 4 Hearing protection (submitted by BIA, Germany)	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 352-2:2002 ☐ Other:

Article: Annex: Clause:

Key words:

Custom moulded earplugs

Question:

Which qualification is required for a person, who makes impressions of the concha and external ear-canal of the test subjects?

Solution:

It should be carried out by a trained specialist for hearing aids or adequately trained personal.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.019 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG 4 Hearing protection	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☒ PPE Regulation	☒ EN/prEN: EN 352-4:2001, 352-8:2008	☐ Other:
Article:	Annex: II, 1.2	Clause:	

Key words:

Level-dependent earmuffs with integrated broadcast-receiver

Question:

How should level-dependent earmuffs with built-in broadcast-receivers be tested?

Solution:

Level-dependent earmuffs with built-in broadcast-receivers should be tested in the following way:

1. as a level-dependent earmuff according to EN 352-4:2001 and

2. as a broadcast earmuff using either signal generators or public broadcast stations applying the MIRE-technique according to EN 352-8:2008.

Within a final test all functions of the earmuff shall be set to maximum volume while the test subject is exposed to a diffuse sound field (according to EN 352-4:2001) at criterion level and simultaneously a public broadcast station or a corresponding signal of a signal generator is received by the specimen under test. The maximum sound level achieved in this test situation has to be determined and assessed.

The manufacturer has to give a warning in the user information: "The audibility of warning signals at a specific workplace may be impaired."

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.022 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG 4 Hearing protection	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☒ PPE Regulation ☒ EN/prEN: EN 352-6/-8/-11:2002 ☐ Other:

Article: Annex: II, 3.5 Clause:

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) 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 meet the requirements 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.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.027 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG 4 Hearing protection (submitted by BIA, Germany)	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 352-8:2008 ☐ Other:

Article: Annex: Clause:

Key words:

Wireless complete hearing protection systems with reproduced sound for entertainment

Question:

These systems transmit signals for example via local induction loaps. How should such products be tested?

Solution:

They should be tested as earmuffs with broadcast receivers (see EN 352-8:2008, 5.2.3).

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.029 Version 02

Number of pages: 324	Approval stage : Approved on :
Origin : VG4 Hearing protection (submitted by BIA, Germany)	☒ Vertical Group 02.10.2019 ☒ Horizontal Committee 23.09.2020 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☐ PPE Guidelines		☒ EN/prEN: EN 352-3:2002, 13819-1:2002	☐ Other:
Article:	Annex:	Clause: 4.1 of 352-3 and 4.2.3.2 of 13819-1	

Key words:

Adjustability and size-ranges for ear-muffs attached to an industrial safety helmet

Question:

A helmet-muff-combination does not satisfy the requirements of EN 13819-1, clause 4.2.3.2, for any size-range. On the other hand it fits well for a panel of test subjects with different head sizes. How to handle this case?

Solution:

The product fails the requirements of EN 352-3.

Remark: It is possible to certify such products based on the PPE Regulation by referring to those parts of the standard that are fulfilled as a technical specification. Explanation for the deviation should be added in the technical file and manufacturer's instructions and information.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.036 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG 4 Hearing protection (submitted by BIA, Germany)	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 13819-2:2002 ☐ Other:

Article: Annex: Clause: 4.1.4

Key words:

Insertion loss, asymmetric design, electronic earmuffs

Question:

The insertion loss is used to test variations of sound attenuation of the test specimens and to test the effect of conditioning (drop test, head band flexing, water immersion, ...) because conditioned and non-conditioned specimens are tested together. EN 13819-2 does not separate between left and right cups. For specific purposes manufacturers produce electronic earmuffs which show different sound attenuation. This is intended by the manufacturer, e.g. left cup with lower sound attenuation and right cup with higher attenuation and restored communication signals.

The mean is taken over all cups and the criterion is given in EN 352-1 resp. -3 as follows: The standard deviation shall not be greater than 4,0 dB in four or more adjacent one-third-octave bands, and not greater than 7,0 dB in any individual one-third-octave band. This criterion may be not fulfilled by the mentioned special earmuffs although the product shows a good design for a specific purpose.

Solution:

The criterion of EN 352-1 resp. -3 to be used for the insertion loss may be applied separately to left and right cups in specific cases. In such a case the manufacturer has to include a statement (warning) in the user information specifying the special purpose of his product together with all the impacts on the users' safety resulting from the asymmetrical design of the hearing protector.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.037 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG 4 Hearing protection	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 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 designation to each earplug, the dimensions of that part or those parts of the earplug that are intended to seal the ear canal are assessed using a gauge comprising a set of circular holes.

Which flanges shall seal the circular hole?

Solution:

At least that flange showing the smallest and that one with the largest diameter shall seal one circular hole.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.038 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG 4 Hearing protection (submitted by BIA, Germany)	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ 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 protection requirement for level-dependent earmuffs/earplugs when worn (as designed) with the level-dependent mode in operation. In case a level-dependent earmuff/earplug provides sufficient attenuation in passive mode but exposes the user by an internal level of 86 dB(A) where the external level is 83 or 86 dB(A) when operated in level-dependent mode this hearing protector offers a lower level of protection in this mode.

How shall these products be dealt with?

Solution:

All products shall at least have a criterion level (for all test noises H, M and L) of 85 dB(A). This eliminates extreme products that have a very high amplification and/or a very high standard deviation.

In addition to that requirement there are minimum criterion levels derived from the minimum attenuation values for passive HPDs from EN 352-1 to -3 (H = 12 dB, M = 11 dB, L = 9 dB):

Minimum criterion level H: 97 dB(A)

Minimum criterion level M: 96 dB(A)

Minimum criterion level L: 94 dB(A)

(The determination of criterion levels is specified in EN 352-4:2001+A1:2005.)

These requirements shall only be applied for products that are aimed at continuous noise situations. For products that are specifically defined for impulse noise (e.g. for hunters) it is not necessary to meet these criteria.

The criterion levels shall nevertheless be mentioned in the user information with a warning that the product is not suited for high continuous noise levels.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.039 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG 4 Hearing protection (submitted by INRS, France)	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☒ PPE Regulation ☐ EN/prEN: ☐ Other:

Article: Annex: Clause:

Key words:

Earplugs, special use, risk in water

Question:

Earplugs are not only used to protect hearing against the harmful effects of noise. Earplugs are also used by swimmers (particularly in swimming pools) against the potential harmful effects of water in this kind of place.

The question is:

Are earplugs used in swimming pools kind of PPE?

Solution:

The "Guide to application of PPE regulation (EU) 2016/425" (first edition, April 2018) defines in clause 20 (Appendix: Guide for the categorisation of personal protective equipment (PPE)) that "earplugs intended for swimmers to prevent water entering the ears" are not PPE. A certification against the regulation (EU) 2016/425 is therefore not possible.

But it might be possible to certify the product in question against the Council Directive 93/42/EEC of 14 June 1993 concerning medical devices because a protection of the middle ear against water while swimming in a pool is necessary, e.g. for individuals with perforated ear drums.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.040 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG 4 Hearing protection (submitted by INRS, France)	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☒ PPE Regulation ☒ EN/prEN: EN 352-7:2002 ☐ Other:

Article: Annex: Clause: 4.1.4

Key words:

Earplugs, non-passive earplugs, special use, impulse noise

Question:

In which way shall the peak attenuation against very high level peak noise of level-dependent earplugs without electronic sound restoration be tested?

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.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.041 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG 4 Hearing protection (submitted by BGIA, Germany)	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 352-6:2002 ☐ Other:

Article: Annex: Clause: Annex B

Key words:

Calculation of mean electrical input level, earmuffs with electrical audio input

Question:

Annex B of EN 352-6 asks for the calculation of the electrical input level for which the mean value plus one standard deviation of the A-weighted diffuse-field related sound pressure level of all sixteen ears is equal to 82 dB(A) .

The procedure to find the mean value is not specified. How should the mean electrical input level be determined?

Solution:

Corresponding to the calculation of the criterion levels in EN 352-4 the following procedure should be applied:

Determine, by interpolation where necessary, the electrical input level (X_i) for which the A-weighted diffuse-field related sound pressure level under the earmuff is equal to 82 dB for each of the 16 ears and then calculate the mean electric input level $(X_1+X_2+\ldots+X_{16})/16$ and the standard deviation.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.042 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG 4 Hearing protection (submitted by BGIA, Germany)	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☒ PPE Regulation ☒ EN/prEN: EN 352-2:2002 ☐ Other:

Article: Annex: II, 1.3.1 Clause:

Key words:

Banded earplugs worn under the chin, test dimension for sizing

Question:

EN 352-2:2002 specifies only dimensions for “over the head and under the chin” and “behind the head”. How can banded earplugs be tested in case they are especially designed for only “under the chin”? For “under the chin” smaller heights may be appropriate. Which heights shall be required as minimum?

Solution:

An additional specification for “under the chin” banded earplugs is needed.

Use the heads specified in EN 13819-1, figure 11 and add the following test dimensions for the test height (horizontal distance top to hole):

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 percentile of females and head C represents dimensions relevant for the test for the 95th percentile of males. Anthropometric data used were collected in „Handbuch der Ergonomie mit ergonomischen Konstruktionsrichtlinien, Band 3; Stand: 1989, Zweite, überarbeitete und erweiterte Auflage, herausgegeben von Bundesamt für Wehrtechnik und Beschaffung, Koblenz, Carl Hanser Verlag, München, Wien“.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.043 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG 4 Hearing protection (submitted by BGIA, Germany)	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☒ PPE Regulation ☒ EN/prEN: EN 352-2:2002 ☐ Other:

Article: Annex: II, 2.9 Clause: 6.2

Key words:

Banded earplugs, exchange of plugs of banded earplugs

Question:

EN 352-2 does not require a description on exchange of plugs of banded earplugs to be included within the user instruction as EN 352-1 does for the exchange of cushions of earmuffs.

Solution:

The manufacturer shall add a description on how to exchange plugs of banded earplugs to the wearer information in case he provides exchange sets for that banded earplugs.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.044 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG 4 Hearing protection (submitted by BGIA, Germany)	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☒ PPE Regulation ☒ EN/prEN: EN 352-6:2002 ☐ Other:

Article: Annex: II, 1.2 Clause: 4.2

Key words:

Earmuffs with electrical audio input, electrical safety

Question:

For earmuffs with electrical audio input, EN 352-6, clause 4.2 requires: “The electrical circuit of the earmuff shall meet the electrical safety and EMC requirements appropriate to this class of equipment.” Which documents are required and appropriate to check that the requirement given in EN 352-6, clause 4.2 is fulfilled?

Solution:

The change on EN 352-6, clause 4.2 agreed on within the meeting of CEN/TC 159/WG 2 on 2005-11-15 in London was: “The electrical circuit of the earmuff shall meet the appropriate electrical safety and EMC requirements.” A declaration written by the manufacturer may be appropriate (like that one for “suitable constituent materials”).

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.045 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG 4 Hearing protection (submitted by BGIA, Germany)	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☒ PPE Regulation ☒ EN/prEN: 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 canal and pinna are prepared by the manufacturer. Based on this imprint the final PPE is produced by the manufacturer in his premises. About 5 % of custom moulded earplugs show a leakage which results in a significant underprotection as studies showed. How can the conformity with the relevant basic health and safety requirement of the regulation (EU) 2016/425 be tested?

Solution:

The number of cases, where leakage was found, can only by decreased, but never will disappear. As a tension of a facial muscle during preparation of the imprint (duration is several minutes) can not completely be avoided and such a tension can change the shape of the ear canal - e.g. by decreasing of ear canal diameter – the imprint will become too small. The final product will show a leakage and in turn a significant and unknown reduction of the protective function. The user can not compensate the leakage by e.g. deeper insertion as he can do using foam plugs. To guarantee the protective function as specified the only solution is to perform a final check of the function at the user's ear canal by the manufacturer. There are techniques available using e.g. little overpressure or loudspeakers and a probe microphone. During EU type examination such a test has to be applied by the manufacturer as well as the test equipment has to be described by the manufacturer, see Annex III m) of the PPE regulation. The conformity of the description has to be assessed by the notified body during the EU type examination.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.049 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG 4 Hearing protection (submitted by IFA, Germany)	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☒ PPE Regulation ☒ 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 between the sound level at the ear of the user and the input voltage. Since test subjects are used the maximum level to be reached is 85 dB(A) (diffuse-field corrected). For safety-related communication higher levels may be necessary during work. In order to be able to assess the total sound exposure the user has to know if the product behaves linearily for higher input voltages and if it possible to extrapolate the MIRE data.

How can the necessary additional data be determined and communicated in the user information?

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, U_{85}.
- 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 U_{85}, therefore determine this point by interpolation.
- Determine the difference between MIRE and ATF values at U_{85}.
- 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.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.051 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG 4 Hearing protection (submitted by IFA, Germany)	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: 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 EN 13819-2, clause 5.4?

Solution:

All samples that are going to be used for the REAT testing with 16 test subjects should be used for the drop test.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.052 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG 4 Hearing protection (submitted by IFA, Germany)	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 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 information

Question:

How can it be ensured that hearing protectors for safety-related communication (that do not contain a limiter) are not used for entertainment purposes?

Solution:

An additional warning in the user information should be included that reads:

“This product may not be used for entertainment since the output level is not limited to the necessary innocuous level.”

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.054 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG4 Hearing Protection	☒ Vertical Group 24.11.2017 ☒ Horizontal Committee 18.07.2018 ☒ EU PPE Working Group 05.11.2018

Question related to ☐ PPE Regulation ☒ EN/prEN: EN ISO 4869-1 + -2 ☐ Other:

Article: Annex: Clause:

Key words:

Sound attenuation, decimal place, APV

Question:

1. With which precision (how many decimal places) is the sound attenuation of an individual test subject measured in accordance with EN ISO 4869-1 to be declared in the test report and used for further calculation?
2. With which precision (how many decimal places) are the mean and standard deviation and the APV of a sample of 16 test subjects in accordance with EN ISO 4869-2 to be calculated and declared in the test report and user information?
3. With which precision (how many decimal places) are the HML and SNR values to be declared in the test report and user information?

Solution:

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

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.055 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : VG4 Hearing Protection	☒ Vertical Group 02.10.2017 ☒ Horizontal Committee 18.07.2018 ☒ EU PPE Working Group 05.11.2018

Question related to ☒ PPE Regulation ☒ EN/prEN: prEN 13819-3:2016 ☐ Other:

Article: Annex: II, 3.5 Clause: 7.4

Key words:

Hearing protectors with 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.

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 RfU PPE-R/	Sheet number	Version	Reference	Keywords	Approved by Vertical Group 5	Approved by Horizontal Committee	Endorsed by PPE Expert Group
General	21-014	01	EN ISO 13688:2013 (4.2)	Innocuousness, azo colourants	28-8-2019	30-9-2019	7-2-2020
General	20-003	01	EN ISO 13688:2013	Comfort, practical performance	28-8-2019	30-9-2019	7-2-2020
General	20-010	01	EN 13911:2004	Fire hoods, practical performance test	28-8-2019	30-9-2019	7-2-2020
General	32-004	01	EN 13911:2004 / EN 13911:2017	Categorization	28-8-2019	30-9-2019	7-2-2020
General	20-016		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	05.105	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	05.355	01		Reference to standards	28-8-2019	30-9-2019	7-2-2020
General	17-007	01		Categorization; combination of properties	28-8-2019	30-9-2019	7-2-2020
General	19-013	01		Draft standards	28-8-2019	30-9-2019	7-2-2020
General	23-011	01		Examination of models	28-8-2019	30-9-2019	7-2-2020
General	25-003	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
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 RfU PPE-R/	Sheet number	Version	Reference	Keywords	Approved by Vertical Group 5	Approved by Horizontal Committee	Endorsed by PPE Expert Group
Visibility			2013 (4.1, 4.2)				
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	29-008	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	29-001	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	29-018	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	19-001	01	EN 13356: 2001 (5.2.2)	Reflective; measurement	28-8-2019	30-9-2019	7-2-2020
High Visibility	21-015	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	29-014	01	EN ISO 11612:2015	Design; pockets	28-8-2019	30-9-2019	7-2-2020

Number of RfU PPE-R/	Sheet number	Version	Reference	Keywords	Approved by Vertical Group 5	Approved by Horizontal Committee	Endorsed by PPE Expert Group
			(4.5b)				
EN ISO 11612	29-016	01	EN ISO 11612:2015 (4.5b)	Design; pockets	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	30-002	01	EN ISO 11612:2015 (4.5b)	Design; pockets	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	23-010	01	EN ISO 11612:2015 (4.5d)	Molten metal design; overlapping seams	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	29-015	01	EN ISO 11612:2015 (4.5e)	Design; closures	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	18-009	01	EN ISO 11612:2015 (4.5)	Molten metal design; Zips	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	27-014	01	EN ISO 11612:2015 (4.5)	Molten metal design, closures, cover flap	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	25-011	01	EN ISO 11612:2015 (5.2.1; 5.2.3)	Pre-treatment of material	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	23-018	01	EN ISO 11612:2015 (5.2)	Flame spread; cleaning	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	05.334	01	EN 469: 2005 (5.2)	Pretreatment; flame spread	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	26-006b	01	EN ISO 11612:2015 (6.2)	Heat resistance; accessories; hardware	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	27-004	01	EN ISO 11612:2015 (6.2.1)	Heat resistance; hardware	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	29-023	01	EN ISO 11612:2015 (6.2.1)	Heat Resistance; shrinkage	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	24-020	01	EN ISO 11612:2015 (6.3.2.2)	Multilayer garments	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	29-004	01	EN ISO 11612:2015 (6.3.2.2)	Hole formation; outer layer	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	30-006	01	EN ISO 11612:2015 (6.3.2.2)	Multilayer; Limited flame spread; Heat transmission	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	26-006a	01	EN ISO 11612:2015 (6.3.2)	Flame spread; seams; accessories; hardware	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	30-004	01	EN ISO 11612:2015 (6.3.2.3)	Flammability behaviour; hardware	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	25-006	01	EN ISO 11612:2015 (6.3.2.4)	Flammability behaviour; embroidery	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	27-009	01	EN ISO 11612:2015 (6.3.2.4)	Flammability behaviour; transfer logos	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	24-013	01	EN ISO 11612:2015 (6.3.3.1)	Flame spread; hems; seams	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	26-008	01	EN ISO 11612:2015 (6.5.4)	Seam strength	28-8-2019	30-9-2019	7-2-2020

Number of RfU PPE-R/	Sheet number	Version	Reference	Keywords	Approved by Vertical Group 5	Approved by Horizontal Committee	Endorsed by PPE Expert Group
EN ISO 11612	27-003	01	EN ISO 11612:2015 (7.2; 7.3)	Heat transfer; assembly; interlining	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	34-014	01	EN 407: 2004 (5.4)	Radiant heat level	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	26-015	01	EN ISO 11612:2015 (7.4; 7.5) / ISO 9185	Molten metal splashes test	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	30-008	01	EN ISO 11612:2015 (7.5)	Molten metal splashes test; Retroreflective	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	31-003	01	EN ISO 11612:2015 (Annex B)	Second set of specimens	28-8-2019	30-9-2019	7-2-2020
EN ISO 11612	33-004	01	EN ISO 11612: 2015	Aprons; plastic buckles	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	05.292	01		Combination of PPE	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	24-028	01	EN ISO 11611: 2007 (4.1)	Single garments	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	24-029	01	EN ISO 11611: 2007 (4.1)	Additional protective clothing	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	26-016	01	EN ISO 11611: 2007 (4.1)	Short sleeves; short trousers	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	05.335	01	EN 470-1: 1995 (4.1) EN ISO 11611: 2007 (4.1)	Design	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	24-003	01	EN ISO 11611: 2007 (4.1.1)	Design; neck; collar	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	29-016	01	EN ISO 11612:2015 (4.5b)	Design; pockets	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	29-014	01	EN ISO 11612:2015 (4.5b)	Design; pockets	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	29-015	01	EN ISO 11612:2015 (4.5e)	Design; closures	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	23-018	01	EN ISO 11612:2015 (5.2)	Flame spread; cleaning	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	05.334	01	EN 469: 2005 (5.2)	Pretreatment; flame spread	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	26-008	01	EN ISO 11612:2015 (6.5.4)	Seam strength	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	24-013	01	EN ISO 11612:2015 (6.3.3.1)	Flame spread; hems; seams	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	26-006	01	EN ISO 11611: 2007 (6.7)	Flame spread; seams; accessories; hardware	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	25-002	01	EN ISO 11611: 2007 (6.9)	Heat transfer, multi-layers	28-8-2019	30-9-2019	7-2-2020
EN ISO 11611	34-014	01	EN 407: 2004 (5.4)	Radiant heat level	28-8-2019	30-9-2019	7-2-2020
EN 469	17-015	01	EN 469: 2005 (1)	Certification, separate clothing items	28-8-2019	30-9-2019	7-2-2020
EN 469	05.157 b	01	EN 469: 1995 (4.6)	Closure systems	28-8-2019	30-9-2019	7-2-2020
EN 469	05.328	01	EN 469: 2005	Neck protection	28-8-2019	30-9-2019	7-2-2020

Number of RfU PPE-R/	Sheet number	Version	Reference	Keywords	Approved by Vertical Group 5	Approved by Horizontal Committee	Endorsed by PPE Expert Group
			(4.3)				
EN 469	05.334	01	EN 469: 2005 (5.2)	Pretreatment; flame spread	28-8-2019	30-9-2019	7-2-2020
EN 469	05-157	01	EN 469: 2005 (6.1)	Badges, logos	28-8-2019	30-9-2019	7-2-2020
EN 469	05.352	01	EN 469: 2005 (6.1)	Embroideries	28-8-2019	30-9-2019	7-2-2020
EN 469	21-013	01	EN 469: 2005 (6.1.6)	Hardware; flame spread	28-8-2019	30-9-2019	7-2-2020
EN 469	22-001	01	EN 469: 2005 (6.1, 5.3)	Flame spread, materials, component assembly	28-8-2019	30-9-2019	7-2-2020
EN 469	22-003	01	EN 469: 2005 (6.1, 6.5, 3)	Flame spread, materials, hardware, braces	28-8-2019	30-9-2019	7-2-2020
EN 469	22-002	01	EN 469: 2005 (6.5, 5.3)	Heat resistance, materials, clothing assembly	28-8-2019	30-9-2019	7-2-2020
EN 469	28-005	01	EN 469: 2005 (6.7)	Tear strength	28-8-2019	30-9-2019	7-2-2020
EN 469	05.156	01	EN 469: 1995 (7.4) EN 469: 2005 (6.9)	Dimensional change, knitted fabrics	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	25-001	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	25-007	01	EN 469: 2005 (Annex B)	Retroreflective photometric performance	28-8-2019	30-9-2019	7-2-2020
EN ISO 14116	18-008	01	EN 533:1997 (4.1) / EN ISO 14116:2008 (4.1) / EN ISO 14116:2015 (4.1)	Index 1; skin contact	28-8-2019	30-9-2019	7-2-2020
EN ISO 14116	26-006	01	EN ISO 11611: 2007 (6.7)	Flame spread; seams; accessories; hardware	28-8-2019	30-9-2019	7-2-2020
Arc flash	22-016	01	CLC/TS 50354	Acceptance criteria	28-8-2019	30-9-2019	7-2-2020
EN ISO 6942	05.110	01	EN 366	radiant heat; colour	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
					28-8-2019	30-9-2019	7-2-2020
CHEMICAL	05.042	01	EN 369 (5.2)	permeation, collecting	28-8-2019	30-9-2019	7-2-2020

Number of RfU PPE-R/	Sheet number	Version	Reference	Keywords	Approved by Vertical Group 5	Approved by Horizontal Committee	Endorsed by PPE Expert Group
				medium			
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
CHEMICAL	27-002	01	EN 13034: 2005/A1: 2009 (5.1)	Partial body protection	28-8-2019	30-9-2019	7-2-2020
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	34-002	01	EN 14325: 2018 (4.4.2.2; Annex E)	Pressure pot; abrasion	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

Number of RfU PPE-R/	Sheet number	Version	Reference	Keywords	Approved by Vertical Group 5	Approved by Horizontal Committee	Endorsed by PPE Expert Group
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
Gloves general	27-011	01	General	Gloves; cold; categorization	28-8-2019	30-9-2019	7-2-2020
Gloves EN 420	23-007	01	EN 420: 2010 (4.3.2)	pH value	28-8-2019	30-9-2019	7-2-2020
Gloves EN 420	32-010	01	EN 420: 2003 (4.3.2)	pH value	28-8-2019	30-9-2019	7-2-2020
Gloves EN 420	19-012	01	EN 420: 2010 (4.3.3)	Chromium	28-8-2019	30-9-2019	7-2-2020
Gloves EN 420	19-011	01	EN 420: 2010 (4.3.4)	Protein content	28-8-2019	30-9-2019	7-2-2020
Gloves EN 420	20-006	01	EN 420: 2010 (4.3.4)	Gloves, natural rubber, protein content	28-8-2019	30-9-2019	7-2-2020
Gloves EN 420	18-014	01	EN 420: 2010 (5.3)	Water vapour transmission and absorption	28-8-2019	30-9-2019	7-2-2020
Gloves EN 420	23-006	01	EN 420: 2010 (5.3.1)	Water vapour transmission	28-8-2019	30-9-2019	7-2-2020
Gloves EN 421	19-004	01	EN 421: 2010	Radiologist's gloves; ionizing radiation	28-8-2019	30-9-2019	7-2-2020
Gloves EN 511	34-008	01	EN 511: 2006 (4.5 / 5.5)	insulation against cold, heated gloves	28-8-2019	30-9-2019	7-2-2020
Gloves EN 659	19-010	01	EN 659: 2008	Firefighter's gloves; cuffs	28-8-2019	30-9-2019	7-2-2020
Gloves EN 659	22-013	01	EN 659: 2008	Firefighter gloves; heat transfer	28-8-2019	30-9-2019	7-2-2020
Gloves EN 659	24-009	01	EN 659: 2008	Firefighter gloves; features	28-8-2019	30-9-2019	7-2-2020
Gloves EN 659	22-014	01	EN 659: 2008	Firefighter gloves; marking	28-8-2019	30-9-2019	7-2-2020
Gloves EN 420:	32-011	01	EN 420: 2003 (7.2.1)	Marking	28-8-2019	30-9-2019	7-2-2020
Electrostatic charges	28-012	01	EN 61340	Electrostatics	28-8-2019	30-9-2019	7-2-2020
Electrostatic charges	34-010	01	EN 1149-5:2018 (4.2.1}	Surface resistance; Surface resistivity	28-8-2019	30-9-2019	7-2-2020
Electrostatic charges	34-016	01	EN 1149-5:2018 (4.2.2.2, 4.2.2.3)	Attachments; Conductive parts	28-8-2019	30-9-2019	7-2-2020
Cold protective clothing	05.299	01	EN 342:2017	combination of cold protection and chemical protection	28-8-2019	30-9-2019	7-2-2020
Cold protective clothing	22-017 (Q1)	01	EN 342: 2017; EN 14058: 2017	Categorization; scope	28-8-2019	30-9-2019	7-2-2020
Cold protective	27-015	01	EN 342: 2017	ensembles and garments; cap	28-8-2019	30-9-2019	7-2-2020

Number of RfU PPE-R/	Sheet number	Version	Reference	Keywords	Approved by Vertical Group 5	Approved by Horizontal Committee	Endorsed by PPE Expert Group
clothing							
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	26-014	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
EN 407	05.337	01	EN 407: 2004 (5.2)	Categorization; contact heat	28-8-2019	30-9-2019	7-2-2020
EN 407	29-020	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	29-019	01	EN 407: 2004 (5.6)	Thermal protection; molten metal	28-8-2019	30-9-2019	7-2-2020
EN 407	27-013	01	EN 407: 2004 (4.2)		28-8-2019	30-9-2019	7-2-2020
EN 12477	24-010a	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
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.l	Type 2; Trousers	28-8-2019	30-9-2019	7-2-2020
EN 14404	26-007	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

	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 13688:2013 (4.2)	Innocuousness, 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 13688:2013	Comfort, practical performance	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 13911:2004	Fire hoods, practical performance 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 13911:2004 / EN 13911:2017	Categorization	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 14877:2002	Abrasive blasting; categorization	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		Categorization; 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		Dimensional change; seams	Is dimensional change in clothing only related to length and width or to seams too?	At the moment only shrinkage of materials shall be tested.	***Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020***
05.292		Combination 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		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***
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		Examination of models	According to the Regulation the certification body shall conduct the necessary examinations to establish the conformity of the model with the essential health and safety requirements. But what does it mean? Should the same model in every different material concept or variation be examined? For example: If a company have a model of a fire fighter's jacket in five different tested material concepts that fulfils the requirements of EN 469 and three different reflective materials that also fulfils the requirements in combination with the material concepts. Shall each combination of the model be examined? In this example it means examination of 15 jackets, provided by the manufacturer.	All model, material and colour changes shall be brought to the attention of the notified body. If the manufacturer can show that these changes can be seen as a variant to a certified model in the sense of the PPE guidelines, a new model examination shall not be required. If the manufacturer can show that there will be no influence on the protective properties, the changes shall not be considered as a new model and no model examination shall be required.	***Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020***
25-003	EN 530 / EN ISO 12947-2	Abrasion	Martindale testing machines for use in the test methods – EN 530 (indicated in EN 471, EN 343), EN 388 clause 6.1 or EN ISO 12947-2 (indicated in EN 343), should meet the requirements of EN ISO 12947-1 and have the counter for counting the abrasion rubs, but not abrasion cycles. However standards EN 388, EN 471, EN 343 state requirements for abrasion resistance in abrasion cycles. Does it mean, that required number of abrasion cycles, performing above mentioned tests, should be converted into rubs, multiplying the number of cycles by 16, according to definitions described in EN ISO 12947-1, clause 3 ?	In EN ISO 12947 a cycle is a full Lissajous figure (16 revolutions) In EN 388, EN 471, EN 343 and other performance specifications, a 'cycle' usually means 1 revolution or 'rub'. We ask CEN TC162 to clarify the definition in their standards.	***Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020***

30-003 r1		Validity of test reports	The acceptance of test reports for EU Type-Examination is treated differently by Notified Bodies, is it possible to come to a consensus that all NB's use the same approach ?	Yes. The acceptance of test reports EU Type-Examination is the responsibility of the Notified Body. Module B of the PPE Regulation states: *"carry out appropriate examinations and tests, or have them carried out….."* In cases where the Notified Body accepts test reports only until a certain date, such date should be not less than 5 years. The Notified Body may also require verification testing of materials.	***Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020***
30-007		Pretreatment; 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. 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".	***Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020***
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 obsolescence, date of manufacture, 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  ISO 7000 nr 2497 for date of manufacture 	***Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020***

Status: September 2021

	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

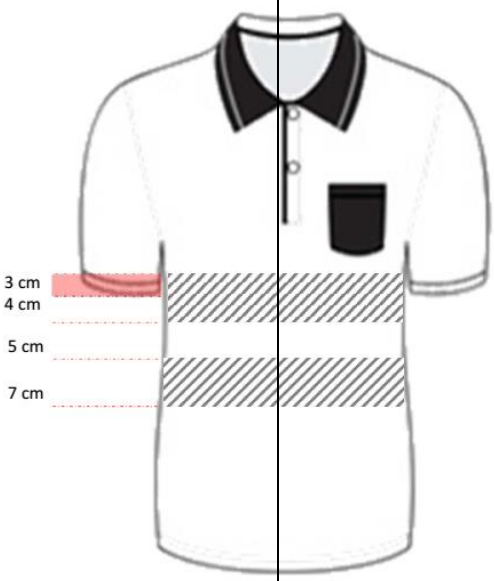
Sheet number PPE-R/05.	Standard (clause)	Key words	Question	Proposed solution	Comment
31-008		Harnesses	In the previous Standard EN 471:2003, there was sub-clause 4.2.9 relating to harnesses: "Harnesses shall comprise a retroreflective band (separate or combined performance materials) encircling the 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?	1. To EN 13356, for a Type 2 accessory intended to signal the user's presence visually when illuminated by vehicle headlight on dark roads. 2. To the Regulation, taking into account the draft standards for products for use in medium 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)	Classification; Jacket with removable 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)	Classification; 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)	Classification; combined performance 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±10% 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 performance 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)	Background; 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 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?	Minimum 50 mm band around the torso, the trouser legs and the sleeves.	

05.346	EN 471: 2003 (4.2) / EN ISO 20471: 2013 (4.2)	Design; retroreflective; 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)	Background; interruptions	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 retro-reflective 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)	Retroreflective 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***

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?  Observation: Each retroreflective band on the torso is 7 cm in width (height). The sleeve blocks 3 cm of the view of the torso band. There remains 4 cm of torso band not blocked.	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***
29-001	EN ISO 20471: 2013 (4.2.3)	waist; bib and brace	Does EN ISO 20471 allow to consider a band of retroreflective material around the waist of a of bib and brace trousers in the assessment of the minimum required area of retroreflective material?	No. Clause 4.1 of EN ISO 20471 contains the sentence: “Only those areas of retroreflective materials that comply with the design requirements of 4.2 shall be used in the assessment of the minimum required area of retroreflective areas.” This design feature was a “must-have” in EN 471 for Class 2 and 3 but it’s no longer considered. Neither the requirements in 4.2 nor the examples shown in Figure 3 refer to it.	

28-008	EN ISO 20471: 2013 (5)	Acceptance 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)	Segmented retroreflective tapes	A retroreflective tape is available, 50mm in width, supplied on a clear film backing. The tape consists of separate sections of retro-reflective material, each about 5-6mm wide, with a gap of about 1-2mm between each segment; each segment is vertically off-set by about 30 degrees (see picture)  1) Assuming a section of tested tape meets the photometric requirements of the standard, is any definitive research that shows whether segmented materials provide the same level of conspicuity as non-segmented tapes? 2) Are gaps in the tape acceptable? Manufacturers may wish to make materials with larger gaps between segments, different segmented widths, and different off-sets. 3) Should gaps between tape segments be counted as background material? 4) As the segmented tape is made to be bonded to fabric, this suggests that photometric measurement should be measured with the tape bonded to a standard material. Should this be a background material complying with EN471:2003 or some other material? The tape could be applied to the non-fluorescent part of a garment.	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 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.	***Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020*** **7.3]**

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)	Retroreflective; 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***

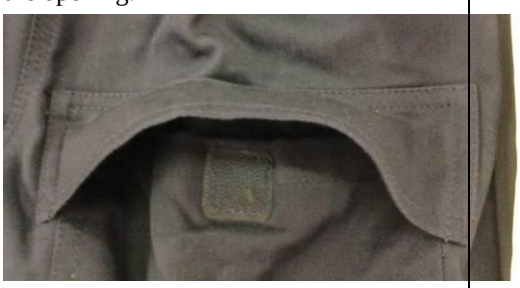
19-001	EN 13356: 2001 (5.2.2)	Reflective ; measurement	Testing of armbands (and similar deformable materials) Most of the European test houses are measuring the photometric measurements of these items on a flat surface. For probably historic reasons (there was one or more accessory standard in Scandinavia 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 retro-reflection 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 accessories, 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***

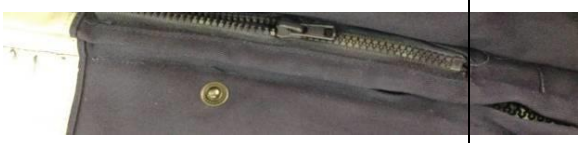
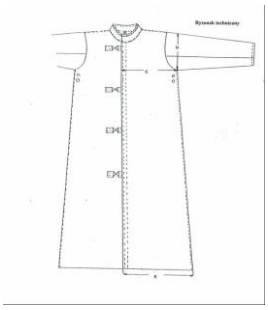
21-004	EN 13356	High visibility accessories, minimum area	What is the meaning of the term "minimum area" in the text underneath table 2 of EN 13356. Does is mean the reflective area of the test specimen or does it refer to the area of 15 cm² which type 2 & 3 accessories should exceed (see clause 4.1). 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***

	CO-ORDINATION OF NOTIFIED BODIES PPE **Vertical Group 5: Protective clothing and gloves** **RECOMMENDATION FOR USE**	**EN ISO 11612** **(EN 531)** **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
24-007	EN ISO 11612:2015	Categorization	What products conforming to EN ISO 11612 belong to category 3?	It is a manufacturer's decision which should be in accordance with the intended use and the risk. The notified body has the right to disagree with the manufacturer's decision. The information leaflet shall contain the appropriate information. The Annex gives the agreed position of VG5.	***Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2-2020***
22-018	EN ISO 11612:2015	Categorization	What category is aluminised clothing designed for steelworkers that meets requirements of EN ISO 11612 class A1, B3-B4, C3-C4 and is not dedicated exactly for emergency team ? Annex I of the PPE Regulation it is pointed out that category III will cover: "e) high-temperature environments the effects of which are comparable to those of an air temperature of at least 100 °C;"	Clothing for steelworkers should be classified as category III. From PPE Regulation Guidelines (1st ed.) categorization guide 6.3: "Clothing and/or accessories (whether or not detachable), designed and manufactured for use in high-temperature environments the effects of which are comparable to those of an air temperature of 100 °C or more and which may or may not be characterised by the presence of infra-red radiation, flames, hot splashes or the projection of large amounts of molten materials."	***Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2-2020***
05.229	EN ISO 11612:2015 (1)	Visors	One of the components of flame and heat protective clothing, is a hood incorporating a visor. However the standards make no reference to tests (optical and thermal) or performance levels for the visor. The same applies to some respiratory requirements, like dead space. What shall be checked by the notified body?	The notified body shall conduct the necessary tests for these respiratory and optical protection components to establish conformity with the basic health and safety requirements (in accordance with the intended use).	***Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2-2020***

24-019 r2	EN ISO 11612:2015 (4.2.2)	Suits; single garments	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 11612:2015 (4.2.2)	Quick-release fastenings	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 11612:2015 (4.3)	Pockets; 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 11612:2015 (4.5)	Molten metal design; Pockets	1. Can a zipper be used for closing a pocket? 2. 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.	1. Yes, if covered by a flap 2. 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 11612:2015 (4.5)	Molten metal design; Pockets	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 11612:2015 (4.5)	Molten metal design; Pockets	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 11612:2015 (4.5b)	Design; pockets	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 11612:2015 (4.5b)	Design; pockets	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 11612:2015 (4.5b)	Design; pockets	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 11612:2015 (4.5d)	Molten metal design; overlapping 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 11612:2015 (4.5e)	Design; closures	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 11612:2015 (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 11612:2015 (4.5)	Molten metal design, closures, 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 11612:2015 (5.2.1; 5.2.3)	Pre-treatment of material	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 11612:2015 (5.2)	Flame spread; cleaning	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 11612:2015 (5.2)	Flammability, 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: 7-2-2020***
26-006b	EN ISO 11612:2015 (6.2)	Heat resistance; 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 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 11612:2015 (6.2.1)	Heat resistance; hardware	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 11612:2015 (6.2.1)	Heat Resistance; shrinkage	When tested according to EN ISO 11612 (point 6.2.1) at 180ºC, 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 11612:2015 (6.3.2.2)	Multilayer garments	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 11612:2015 (6.3.2.2)	Hole formation; 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 11612:2015 (6.3.2.2)	Multilayer; Limited flame spread; Heat transmission	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? 2. In a multilayer garment, if the classification for heat transfer can be based upon the performance of the outer fabric only, can holing of an interlining (e.g. a nonwoven providing protection against cold) during the limited flame spread test be accepted?	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***
26-006a	EN ISO 11612:2015 (6.3.2)	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: 7-2-2020***
30-004	EN ISO 11612:2015 (6.3.2.3)	Flammability behaviour; hardware	Clause 6.3.2.3 states: *"Hardware (e.g. touch and close (hook and pile) fasteners, etc.), whether it is exposed or covered when all closure systems in the closed position, shall be tested separately by applying the test flame to the outer surface of the component assembly containing hardware exactly as designed in the garment. The hardware shall remain functional after the test."* Can closures which are completely metal and which are not sewn on to the garment be excluded from the test due to a much higher melting point than possible with the test flame?	Yes. Closures which are completely metal and which are not sewn on to the garment do not have to undergo the test.	***Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2-2020***

25-006	EN ISO 11612:2015 (6.3.2.4)	Flammability behaviour; embroidery	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 11612:2015 (6.3.2.4)	Flammability behaviour; transfer 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 11612:2015 (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; 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***

26-008	EN ISO 11612:2015 (6.5.4)	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 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 11612:2015 (7.2; 7.3)	Heat transfer; assembly; interlining	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 11612:2015 (7.3)	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 (C1 ≥ 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 11612:2015 (7.4; 7.5) / ISO 9185	Molten metal splashes 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 11612:2015 (7.5)	Molten metal splashes test; Retroreflective	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 11612:2015 (Annex B)	Second set of specimens	Annex B states: "Annex B (normative) Determination of property values for rating and classification" "All the individual results of the specimens of a test shall meet the performance requirement." "The average result shall be given. If a material exhibits differing behaviour for a property in the length and cross directions of the material, the resultant property value shall be the value obtained in the lesser performing direction." "In the event that only one specimen fails, another set of specimens shall be tested and all the individual results of this second set of specimens shall meet the requirements. Otherwise, the sample is considered to have failed the requirement." What is meant by "another set of specimens"	The second set of specimens is a full set of specimens for the particular test.	***Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2-2020***

33-004	EN ISO 11612: 2015	Aprons ; plastic buckles	Plastic buckles are used as closure and regulation system in aprons to be certified in accordance with EN ISO 11611:2015 and/or EN ISO 11612:2015. The buckles are on the back of the user.  Shall this type of closure/regulation system: 1) be covered by a protective cover flap? (as required by § 4.6 of EN ISO 11611:2015 and 4.5 of EN ISO 11612:2015) 2) undergo the test of limited flame spread? (as required by § 6.7.2.3 of EN ISO 11611:2015 and 6.3.2.3 of EN ISO 11612:2015) 3) undergo the test of heat resistance at 180 °C? (as required by § 6.2.1 of EN ISO 11612:2015)	1) No, this type of closure/regulation system does not need to be covered by a protective flap. This is not a closure in the meaning of the standards EN ISO 11611 and EN ISO 11612. 2) Yes, it must be tested for limited flame spread, for both standards. 3) Yes, it must undergo the heat resistance test at 180 °C for EN ISO 11612, but not for EN ISO 11611 (as heat resistance is not required for EN ISO 11611).	***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
B3	***20+***		C3	***50-95***		F3	***15+***
			C4	***95+***			

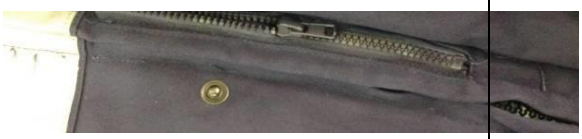
Level	Molten aluminium		Level	Molten iron
D1	100-200*		E1	60-120*
D2	***200-350***		E2	***120-200***
D3	***350+***		E3	***200+***

* 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 number PPE-R/05.	Standard (clause)	Key words	Question	Proposed solution	Comment
05.292	EN 470-1: 1995 (1)	Combination 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 outside of the flap.)	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; pretreatment	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)	Flammability, 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 ≥ 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***

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

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 Committee: 30/09/2019 Approval by PPE expert group: 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 Committee: 30/09/2019 Approval by PPE expert group: 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 Committee: 30/09/2019 Approval by PPE expert group: 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***

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***

28-005	EN 469: 2005 (6.7)	Tear strength	EN 469 specifies a minimum tear strength for non-coated outer material of at least 25 N when tested according to EN ISO 13937-2:2000. Fabrics for firefighter's clothing are often made with novel structures and technologies to increase the tensile and tear strength. This can cause problems with the tear test method. In some cases, threads are pulled out of the normal small-width test specimens or the tear transfers across the specimen. The standard says that these specimens should be discarded. Clause 9.4 of EN ISO 13937-2 states "Annex D describes a test method using enlarged test specimens (8.2.2) which may be acceptable to samples considered untearable by the test using small-width test specimens or for special tear-resistant fabrics". However, the results measured with large specimens may be very different, and are often much higher than with small specimens. One sample tested by BTTG achieved ~ 150 N using small specimens and greater than 600 N with large specimens. It may also be the case that these larger specimens also suffer from the same problems, in which case the standard recommends that other methods are considered, however EN 469 only specifies EN ISO 13937-2. Although all of these results are much greater than the minimum 25 N, and so clearly meet the requirements of EN 469, the problem remains that if different laboratories use different sample sizes, then test reports for similar or the same	The small test specimen shall be used. If there are problems with the specimens, the larger specimen size can be used. This shall be recorded in the test report. If, when using the enlarged test specimen, the specimens continue to fail in such a way that the standard says the specimens should be discarded, the result shall be recorded on the test report, together with a statement that the method is considered unsuitable for this type of material.	***Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020***

05.156	EN 469: 1995 (7.4) EN 469: 2005 (6.9)	Dimensional change, knitted fabrics	The 3% maximum change quoted in these specifications is neither appropriate nor accurately measurable for knitted fabrics.	The 3% 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.	***Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020***
05.061	EN 469: 1995 (7.5) EN 469: 2005 (6.10)	Liquid penetration	How can one perform an EN 368 [EN ISO 6530] test on retroreflective elements?	The liquid penetration test should not be performed on retroreflective material.	***Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020***
23-020	EN 469: 2005 (6.14)	Fluorescent material	There are tapes on the market which are commonly used for firefighter's garments which do not fully meet EN 469, for instance one incorporating red stripes with a central silver retroreflective stripe. The red is described in the marketing literature as 'Fluorescent', but it fails to meet the requirements of clause 6.14, i.e. it cannot be described as fluorescent according to EN 471:2003. Is it possible to use this or similar tapes on garments conforming to EN 469:2005?	Yes, provided that user information state that the tape does not meet the requirements of EN 471. The Type-Examination Certificate should also state that the material is not to be regarded as meeting EN 471.	***Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020***

25-001	EN 469: 2005 (6.14, Annex B);	Retroreflective; fluorescent; minimum area	EN 469 states that if applied, retroreflective shall encircle the arms, legs and torso. In EN 469 this requirement is understood to be required for fluorescent if it is applied. When measuring the area of fluorescent and/or retroreflective, should we take only the encircling bands into account, or should we also include material that does not encircle?	ALL visibility material should be included in the area calculation, including non-encircling and vertical strips.	***Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020***
22-004	EN 469: 2005 (7.4.2)	Heat protection; marking	When an EN 469:2005 garment meets Level 2 for Radiant and Convective Heat for all assemblies, should it be marked: Xf2 Xr2 Or can it be marked: X2	Both solutions may be used, but X2 may only be used if both Xf2 and Xr2 levels are obtained. According to WG 2 the notion Xf2 Xr2 is to be preferred. WG 2 will be asked for clarification in the next amendment or revision of the standard.	***Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 07/02/2020***
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: Horizontal Committee; EU PPE Expert Group Approved on: 30-09-2019; 7-2-2020

Sheet number PPE-R/05.	Standard (clause)	Key words	Question	Proposed solution	Comment
18-008	EN 533:1997 (4.1) / EN ISO 14116:2008 (4.1) / EN ISO 14116:2015 (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 14116:2008 (6.1.4) / EN ISO 14116:2015 (6.1)	Flame spread; seams; accessories; hardware	If in a technical files different fabrics (different weight, different composition, coated and non-coated, with or without A/S fibre etc) are used to make the personal protective equipment (clothing), shall the flame spread on the accessories (hardware etc) and the seam be tested on each quality?	In principle, testing from similar fabrics can be used for certification. It is recognised that garment assemblies can be highly complex, being comprised of a variety of materials and combinations. Therefore, it is recommended that each Notified Body considers the worst case condition for the product, thereby requiring those tests it deems necessary to satisfy the requirements of the Standards and the Regulation.	***Approval by Horizontal Committee: 30/09/2019 Approval by PPE Expert Group: 07/02/2020***

	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	Acceptance 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***

	CO-ORDINATION OF NOTIFIED BODIES PPE **Vertical Group 5: Protective clothing and**	**EN ISO 6942** **(EN 366)** **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
05.110	EN 366	radiant heat; colour	The results may be very different following the colour of material, white or dark. Which colour shall be tested if the garment is produced in several different colours?	Test minimum 1 sample of each colour and proceed further with the colour that gave the worst result.	***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 9150** **(EN 348)** **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
05.272		calorimeter	How can we cool the molten metal splash calorimeter without producing a thermal drift?	It is better to let it cool down without any external action.	***Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020***

	CO-ORDINATION OF NOTIFIED BODIES PPE **Vertical Group 5: Protective clothing and gloves** **RECOMMENDATION FOR USE**	**EN ISO 9151** **(EN 367)** **Rev: 2019-08** Approval by: Horizontal Committee EU PPE Expert Group Approved on: 30-09-2019 7-2-2020

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

	CO-ORDINATION OF NOTIFIED BODIES PPE **Vertical Group 5: Protective clothing and gloves** **RECOMMENDATION FOR USE**			**EN ISO 9185** **(EN 373)** **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**
29-013	EN ISO 9185:2007	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***

	CO-ORDINATION OF NOTIFIED BODIES PPE **Vertical Group 5: Protective clothing and gloves** **RECOMMENDATION FOR USE**	**EN ISO 15025** **(EN 532)** **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
05.283	EN 532	Hole, flame-spread test	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. When shall the evaluation of the hole be made? 1) When the specimen is placed on the specimen holder 2) When the specimen is removed 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 PPE expert group: 7-2-2020***

	CO-ORDINATION OF NOTIFIED BODIES PPE **Vertical Group 5: Protective clothing and gloves** **RECOMMENDATION FOR USE**	**CHEMICAL** **(including biological and radioactive risks)** **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
05.042	EN 369 (5.2)	permeation, 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 ($1 \mu g.cm^{-2}.mm^{-1}$) 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)	Radioactive contamination – 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	Additional 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/A1: 2009 (4.1)	Penetration & 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/A1: 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)	instructions for use; test results	Should a manufacturer be allowed to indicate in the instructions for use the real values of test results obtained in EC type examination testing, when the requirement of these tests is expressed as a pass/fail criterion only?	No, according to ~~sheet nr CNB/P/00.077~~ RfU PPE-R/00.034, which is an explanation of the Regulation - annex II – item 1.4, the instructions for use must not be misleading for the user. Mentioning a measured value in addition to the conformity statement could make the user suppose that this value can be used to express the real performance of the equipment, and to determine the choice of the most suitable equipment and its conditions of use (for example wear period) taking into account the risk analysis. This is not acceptable since the standardisation working group - after evaluation of the test method - only retained a pass/fail criteria instead of classes.	***Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020***
21-023	EN 14126 (4.1.4)	infective agents	1.) For chemical protective clothing, which meets the requirements of EN 943-1, protection against infective agents is claimed. Shall this clothing meet all requirements (tests), specified in EN 14126, clause 4.1.4, or just part of them? 2.) Is it necessary to perform the same material tests on clothing materials, gloves and boots?	1.) The intended use and the corresponding risks and levels of protection shall clearly be stated. From this it should become clear if all or just some of the requirements are relevant and which tests should be performed. It should be noted that EN 14126 was developed with a very wide range of clothing types in mind. 2.) Yes, all constituent materials, exposed to the risk, shall be tested	***Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020***
34-002	EN 14325: 2018 (4.4.2.2; Annex E)	Pressure pot; abrasion	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?	The expected volume in 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.	***Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020***

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

20-004	General	Abrasion, flex cracking, pressure pot	When testing coated fabrics, laminates and membranes to Clauses 4.4, 4.5 and 4.6 of EN 14325:2004, there can be significant differences in classification between visual assessment and when using the pressure pot. Many fabrics that have previously passed using visual inspection have failed when assessed with the pressure pot. Now that EN 13034, EN ISO 13982-1 and EN 14605 have been ratified, what should be done regarding Certificates that have been issued where the fabric was assessed visually?	The notified bodies shall draw the manufacturers' attention to the changes induced by EN 14325 and their impact on material classification and recommend the manufacturers to have their materials assessed against the new test procedures. However, this should not be presented as mandatory.	***Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020***
05.318	General	Instructions for use	Should NB´s agree on essential harmonised formulations, which are not covered/required by the (pr)EN-standards, to be included into the "instructions for use" for specific types of CPC?	Yes, they should. This is an approach to improve equal treatment of the manufacturers by the European test houses. <u>CPC Types 1, 2, 3, 4, 6</u> *"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."* <u>CPC Types 3,4,6 that are used in connection with respiratory protective devices (RPD)</u> *"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	Repellency	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***

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***

	CO-ORDINATION OF NOTIFIED BODIES PPE **Vertical Group 5: Protective clothing and gloves** **RECOMMENDATION FOR USE**	**EN 388** **Rev.: 2019-08** Approval by: Horizontal Committee; EU PPE Expert Group Approved on: 30-09-2019; 7-2-2020

Sheet number CNB/P/05	Standard (clause)	Key words	Question	Proposed solution	Comment
17-011	General	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	General	performance 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 multi-layered gloves with layers at least Level 1, can a test be stopped between Levels and the results for individual layers (number of rubs at which layers still comply) be added together to achieve a Level greater than would be achieved by adding the Levels (number of rubs for the Level) together? E.g. Level 2 + Level 2 + Level 2 = 1500 = Level 2, whereas the layers may actually achieve 600 + 700 + 800 = 2100 = Level 3.	No. For multi-layered gloves, it is not possible to add the number of rubs for the determination of the Level.	***Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020***
18-002	EN 388: 2016 (6.2.3)	Cut resistance	According to clause 6.2.3 it is required, that in the case of several unbonded layers, these layers are tested together for classification of blade cut resistance. In some cases tests on a material combination e.g. leather/kevlar-knitting lead to a lower performance level (eg. level 2) compared to the performance level on an individual material layer (e.g. level 1 for leather, level 3 for kevlar-knitting). Could in case of several unbonded layers, the test be performed on each layer and the classification of cut resistance be based on the highest value obtained (as in clause 6.3.6 tear resistance) ?	No, the combination shall be tested as specified in EN 388.	***Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020***
32-009	EN 388: 2016 (6.2.6)	Cut resistance	Performing the blade cut test of EN 388, if a cut through does not occur within 60 cycles, the test must be stopped manually, but the standard fails to state how to procced: in case the Cn+1 is lower than 3*Cn the cut Index is calculated taking into account the "60" What is the correct procedure to follow?	The "60 cycles result" means the material is highly resistant to cutting and therefore ISO 13997 method shall be used, independently from the 3-times difference between cut cycles before and after the specimen testing.	***Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020***

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

<table>
<tr>
<td>22-010</td>
<td>EN 388: 2016</td>
<td>Mechanical protection</td>
<td>How should one test and evaluate the mechanical protection level according to EN 388:2016 of the following gloves? (see photographs of gloves a to d attached). What should be on the pictogram?

<table>
<tr>
<td>a) Gloves with reinforcement patches almost completely covering the palm and thumb:
  </td>
<td>b) Gloves with reinforcement patches almost completely covering the palm but not the thumb:
  </td>
</tr>
<tr>
<td>c) Gloves with reinforcement patches covering some places on the palm and thumb:
  </td>
<td>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):
  </td>
</tr>
</table>
</td>
<td>The results obtained on the weakest parts of the structure should be considered for the marking. This is sometimes in contradiction with taking the specimens from the palm of the glove. The informative notice shall give clear information on the meaning of the markings.

Glove a)

Abrasion resistance: test on the complete structure, not on the separate materials.

Tear strength of the reinforcement patches should be tested and taken into account if higher than that of the other materials in the palm structure.

Puncture and cut resistance should be tested on the weakest spots.

Glove b)

For cut, tear and puncture see solution a)

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.</td>
<td>Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020</td>
</tr>
</table>

27-001	EN 388: 2016	Leather; description; thickness	1) Shall a manufacturer of leather gloves indicate the thickness of the leather in their Technical File. 2) 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 end-user. 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***

	CO-ORDINATION OF NOTIFIED BODIES PPE **Vertical Group 5: Protective clothing and gloves** **RECOMMENDATION FOR USE**	**EN ISO 374** **Gloves for chemicals and micro-organisms** **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
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	Degradation; Hydrofluoric Acid	The current list of chemicals in Table 2 of EN ISO 374-1:2016 includes Hydrofluoric Acid 40% (CAS 7664-39-3) and clause 5.3 requires that all chemicals claimed in the marking should be tested according to EN 374-4 (Degradation). However, the degradation test method requires the use of glass vials for this test, which is not suitable for use with Hydrofluoric Acid. How should this problem be approached?	It is possible to make the test using polystyrene screw cap vials 12 mm inner diameter in the neck (just as the prescribed 20 ml glass vials). They can resist the 40 % Hydrofluoric Acid for an hour though do show some whitening. NOTE: The vapour pressure of 40% Hydrofluoric Acid is so high that the test needs to be performed in a fume cabinet, and the test equipment should be protected from corrosion due to the vapour.	***Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020***
33-002	EN ISO 374-1:2016	Permeation levels; User information	EN ISO 374-1:2016: Clause 7 states "The information supplied by the manufacturer shall be in accordance with the requirements for information as defined in EN 420. It shall also include the results of 5.2, 5.3, 5.4 the list of all the chemicals to which the protective gloves have been tested and the performance levels obtained in permeation testing". This list can be interpreted to consist of either: a) All those tested and achieving level 1 or above (Note: Table 1 of EN ISO 374-1 does not include level 0) or b) Everything tested including those that achieved level 0 However, for certification to the Regulation there is a third possibility to only include the tested chemicals where the manufacturer wishes to make a claim. Which of the above options are considered to be acceptable?	Some customers will complete exploratory/development testing against many different chemicals, for example those which may be new to the list within EN ISO 374-1:2016 and unfamiliar to the customers. If they are unsure on how their gloves may perform, they may wish to carry out this investigative check testing but not claim the levels achieved if they are below the expected. Proposed solution is therefore that only the chemicals that the manufacturer wishes to claim protection against should be listed. To list potentially up to 17 level 0 results on an artwork or UIS documents would appear to have limited value and distract from the more useful information. It would also take up a large quantity of the user instruction sheets/box artwork which already needs to include a lot of mandatory information to comply with EN ISO 374-1:2016.	***Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020***

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

CO-ORDINATION OF NOTIFIED BODIES PPE

Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

Gloves

General & Miscellaneous

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
27-011	General	Gloves; cold; categorization	What is a category of gloves protecting against cold if a temperature of cool environment is equal or higher than -5°C?	VG5 are of the opinion that these protective gloves belong to PPE of category 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	In a case of knitted gloves partly coated by plastics or rubber, which parts of glove should be tested for pH value to confirm that it meets the requirement of the standard (back side of glove not coated or partly coated and palm side – totally coated)?	Both the knitted material and the coated 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	Point 4.3.2 of EN 420:2003+A1:2009 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 together;" Issue: for some Customers it may be convenient from an economic point of view to only perform the test on each single layer.	The lab can decide on a case by case basis if - they perform the test as described in the Standard (all the layers together); or - determine the pH content of each single material which will have to meet the following requirement: 3,5<pH<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	Does clause 4.3.3 Determination of chromium (VI) content exclude chemical protective gloves?	This clause intended to address testing of leather gloves. Leather gloves shall always be tested on their Cr-VI content. Other gloves shall only be tested in case of doubt. A declaration of the manufacturer that the product is free 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	Is clause 4.3.4 Determination of extractable protein content applicable to chemical protective gloves made from natural rubber ? Does the NOTE exclude them?	The clause makes testing of extractable protein content mandatory. The note can be considered as a warning to be very careful with the interpretation of test results but is not in contradiction with the clause.	***Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020***

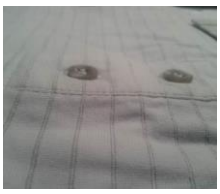
20-006	EN 420: 2010 (4.3.4)	Gloves, natural rubber, protein content	EN 420 (2010) foresees the determination of extractable protein content for natural rubber latex gloves in section 4.3.4. Is this mandatory for natural rubber gloves that are worn with under-gloves (this is the case of containment enclosure 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 transmission 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 transmission	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***
32-011	EN 420: 2003 (7.2.1)	Marking	1) 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? 2) Is it required to put "EN ISO 13688" or "EN 420" in the labelling in addition to the specific product standard number?	1) 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. 2) No, because Clauses 7.2 only require the number of the specific product standard in the marking.	***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**	**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	Electrostatics	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}	Surface resistance; Surface resistivity	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 Ω on at least one surface, tested according to EN 1149-1." The value less than or equal to 2,5 x 10^9 Ω on at least one surface is meant as the obverse side or the reverse side?	1) EN 1149-5 requires a maximum surface resistance of 2.5 x 10^9 Ω. Calculation of Surface resistivity is required by EN 1149-1, but is not required for certification according to EN 1149-5. 2) Result from obverse side or the reverse side is accepted.	***Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020***

34-016	EN 1149-5:2018 (4.2.2.2, 4.2.2.3)	Attachments; Conductive parts	Are non-conductive attachments to the outside of garments, greater in thickness than 2 mm, acceptable? e.g. plastic buttons (> 2 mm thick), plastic buckles (> 2 mm thick) and plastic press studs (see pictures below)	EN 1149-5:2018, clause 4.2.2.2, states that "Exposed cords, drawstrings, etc. shall not exceed 20 mm in width." For other items, the guidance in CEN/CLC/TR 16832 and IEC/TS 60079–32–1 (CLC/TR 60079-32-1) should be followed. CEN/CLC/TR 16832:2015 Table A.2, and CLC/TR 60079-32-1:2018 Table 3, set a limit of 400 mm2 (4 cm2) for the maximum area of an insulating solid material for use in the most 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."	***Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020***
Images for PPE-R/05.34-016      					

	CO-ORDINATION OF NOTIFIED BODIES PPE **Vertical Group 5: Protective clothing and gloves** **RECOMMENDATION FOR USE**	**Cold protective Clothing** **EN 342, EN 14058** **Rev.: 2019-08** Approval by: Horizontal Committee; EU PPE Expert Group Approved on: 30-09-2019; 7-2-2020

Sheet 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 –60ºC, and to protect also the devices against these "cold" chemicals. The chemicals protective suit itself fulfils the permeation requirements	This is a category III equipment. 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. The whole suit when used with the chemical protective clothing and devices shall pass the work simulation test at low temperatures as specified in EN 943-2, clause 8.1.1.2.	***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 –50ºC and low risks are situations of "atmospheric conditions that are not of an extreme nature.". EN 342 covers the medium risks, but it's not very clear if scope of the standard EN 14058 addresses category I or II.	EN 14058 was developed for protection in cool environments (higher than -5 °C), which corresponds to cat. I PPE. However, it contains also an optional manikin test. Depending on the results of the manikin test the garment can be cat I or cat II (see tables in annex B of the standard). Results should be interpreted in connection with the rest of the standard clothing used in the test.	***Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020***

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

`

	CO-ORDINATION OF NOTIFIED BODIES PPE **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.**

	CO-ORDINATION OF NOTIFIED BODIES PPE **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 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
05.245 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 100ºC)	Category II The manufacturer is responsible for product categorization.	***Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2-2020***

29-020	EN 407: 2004 (5.2)	Classification; contact heat	According to EN 407:2004, Section 5.2, " For contact heat performance levels of 3 or 4, the burning behaviour according to 6.3 shall be performed. The product shall record at least level 3 in the burning behaviour test, otherwise the maximum contact heat performance that shall be reported is level 2." 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 end-use 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…"	No, it is not possible according to EN 407.	***Approval by Horizontal Committee: 30/09/2019 Approval by PPE expert group: 7-2-2020***

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 heat	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 $\geq$ 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 $\geq$ 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)

Property → **↓ Product standard**	Burning behaviour - Afterflame time (s) - Afterglow time (s)	Convective heat (EN 367) - HTI (s)	Radiant heat (20 kW/m^2)	Contact heat - Contact temp (ºC) - Pain threshold time (s)	Welding drops - Number of drops	Molten metal splashes mass (g) - Aluminium - Iron
EN 407:2004 Protective gloves against thermal risks (category 2 or 3) **Levels**	< 2 < 5	<u>> 18</u>	<u>> 95</u>	<u>500</u> <u>> 15</u>	> 35	<u>200</u>
	< 3 < 25	> 10	<u>> 50</u>	350 > 15	> 25	<u>120</u>
	< 10 <120	> 7	<u>> 20</u>	250 > 15	> 15	60
	< 20	> 4	> 7	100 > 15	> 10	30

	CO-ORDINATION OF NOTIFIED BODIES PPE **Vertical Group 5: Protective clothing and gloves** **RECOMMENDATION FOR USE**	**EN 510** **Rev.: 2019-08** Approval by: Horizontal Committee; EU PPE Expert Group Approved on: 30-09-2019; 7-2-2020

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

CO-ORDINATION OF NOTIFIED BODIES PPE

Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

EN 14404

Rev.: 2019-08

Approval by:	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
18-004	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 attached 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.l	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. l (information about trousers) the combination of trousers and knee pads needs to be tested and certified. 2) No, because the EU type approval certificate shall be issued for the manufacturer of the combination of trousers and knee pads or for the pad manufacturer only for specific trousers (e.g. defined by trousers´ manufacturer and article number for appropriate trouser design, material and knee pad pocket shape).	***Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020***
26-007	5.2.5; 6.5	Penetration resistance	During penetration testing of a knee protector the required minimum force can't be applied to the test spike (nail) after a movement of 25mm (see also EN 863 clause 4.3). The protector resists complete penetration due to the thickness of the protector. Required is a resistance against penetration at a force of at least 100N for level 1. Does the knee protector meet the requirement of clause 5.2.5?	Clause 5.2.5 requires that a knee protector shall resist at a required force complete penetration and the internal face of the protector shall not deflect by more than 5mm. It is required that the minimum penetration force can be applied to the test spike. A knee protector cannot be said to meet 5.2.5 if the test spike moves max. 25mm without penetration but the required penetration force can't be applied (e.g. thick soft foam). The maximum test spike movement of 25 mm shall be increased as appropriate, such that the required force, as specified in 5.2.5 of EN 14404, can be applied. The test shall be terminated if the internal face of the knee protector deflects by more than 5 mm, or the spike penetrates the specimen.	***Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020***

CO-ORDINATION OF NOTIFIED BODIES PPE

Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

EN 16689

Rev.: 2019-08

Approval by:	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
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	***Approval by Horizontal Committee: 30-9-2019 Approval by PPE expert group: 7-2-2020***

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 of RfU PPE-R/	Version	Reference	Keywords	Approved by Vertical Group 8	Approved by Horizontal Committee	Endorsed by PPE Working Group
08.002	01	ISO 12402-5:2006 and ISO 12402-5:2006+A1:2010	Snorkel Vest	21.04.2018	21.04.2018	29.11.2019
08.004	01	ISO 12402-7:2007 and ISO 12402-7:2007+A1:2011	Fabric & Sewing Thread	21.04.2018	21.04.2018	29.11.2019
08.005	01	ISO 12402-8:2006 and ISO 12402-8:2006+A1:2011	Sprayhood clear material	21.04.2018	21.04.2018	29.11.2019
08.006	01	ISO 12402-6:2006 and ISO 12402-6:2006+A1:2010	VG8 Proposal for 50N Flotation Suits (EN ISO 12402-6)	21.04.2018	21.04.2018	29.11.2019
08.007	01	EN ISO 12402-7: 2007 and ISO 12402-7:2007 +A1:2011	Hardware	21.04.2018	21.04.2018	29.11.2019
08.009	01	EN ISO 12402-5:2006+A1:2010 and ISO 12402-6:2006+A1:2010	Buoyancy requirements and testing procedures for 2 piece 50N flotation suits	21.04.2018	21.04.2018	29.11.2019
08.010	01	EN ISO 12402-7:2007+A1:2011	Inherently buoyant material – Thickness of foam	21.04.2018	21.04.2018	29.11.2019
08.011	01	EN ISO 12402-4:2006 and ISO 12402-4:2006+A1:2010	In water performance - faceplane	21.04.2018	21.04.2018	29.11.2019
08.013	01	EN ISO 12402-7:2007+A1:2011	Webbing and Thread requirements	21.04.2018	21.04.2018	29.11.2019
08.014	01	ISO 12402-7:2007+A1:2011	Colour and illumination issues	21.04.2018	21.04.2018	29.11.2019
08.015	01	ISO 12402-7:2007+A1:2011	Inflation Chamber Material	21.04.2018	21.04.2018	29.11.2019
08.016	01	ISO 12402-9:2006+A1:2011	Buoyancy test method	21.04.2018	21.04.2018	29.11.2019
08.018	01	ISO 12402-6:2006+A1:2010	Constant wear devices	21.04.2018	21.04.2018	29.11.2019
08.019	01	ISO 12402-7:2007+A1:2011	Oral inflation systems	21.04.2018	21.04.2018	29.11.2019
08.022	01	EN ISO 12402-7+A1:2011	IRM Oil, Foam testing	21.04.2018	21.04.2018	29.11.2019
08.023	01	EN 13138-1,-2,-3:2008	Colour requirements	21.04.2018	21.04.2018	29.11.2019
08.026	01	ISO 12402-9:2006+A1:2011	Inflation tests	21.04.2018	21.04.2018	29.11.2019
08.027	01	ISO 15027-1:2012	Resistance to illumination	21.04.2018	21.04.2018	29.11.2019

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

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.002 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 8	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 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 'Snorkel Vests'.

Solution:

VG8 agree that a Snorkel Vest is a Buoyant Device for use where help is close at hand and so these devices should be tested as a buoyancy aid in accordance with ISO 12402-5 for level 50 devices.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.004 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 8	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: ISO 12402-7:2007 and ISO 12402-7:2007+A1:2011	☐ Other:
Article:	Annex:	Clause: 4.2 & 4.3	

Key words:

Fabric & Sewing Thread

Question:

Is it necessary to test each colour in a range of the same fabric and sewing thread?

Solution:

It was agreed by VG8 - If a fabric/thread manufacturer has a range of colours then it is acceptable to test the brightest and the darkest colour and then test a sample of the colours in between these two, the number of additional colours tested is a decision for the Notified Body to make but it should representative of the range being produced.

This agreement however does not apply to Rescue Devices.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.005 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 8	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☐ EU PPE Working Group

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 material

Question:

In ISO 12402-8:2006+A1:2011, Clause 5.5 for Sprayhoods. There is a requirement to have the clear material of a sprayhood to be compliant with ISO 12402-7. However, there is no requirement specifically for clear material in ISO 12402-7:2007+A1:2011. There is a requirement in Table 21 for Window material but this is specifically for viewing an inflation mechanism. These requirements are also excessive to what the requirement for clear material on a sprayhood would be (e.g. minimum thickness is excessive for a sprayhood window and could cause packing difficulties).

Solution:

It was agreed that in paragraph 4, line 1 of clause 5.5.1 in ISO 12402-8:2006+A1:2011 the words 'compliant with ISO 12402-7' is not relevant for the sprayhood materials and the below compliance criteria shall be used:

A sprayhood should comply with all requirements of ISO 12402-8 and not affect the device meeting all requirements when tested for in water performance according to ISO 12402-9, clause 5.6.

When tested as part of the PFD in accordance with ISO 12402-9:2006+A1:2011, clause 5.5.3 and 5.5.4 the sprayhood materials, including any clear window material, should show no sign of damage such as shrinking, cracking, swelling, dissolution or change of mechanical qualities.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.006 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 8	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: ISO 12402-6:2006 and ISO 12402-6:2006+A1:2010	☐ Other:
Article:	Annex:	Clause: 5.5, 5.5.1, 6.5	

Key words:

VG8 Proposal for 50N Flotation Suits (EN ISO 12402-6)

Question:

As there is a clear difference in design and performance of 50N flotation suits compared to standard 50N buoyancy aids, what are the additional testing requirements for testing and marking of 50N Flotation suits?

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 to be included in ISO 12402-6 as an additional clause specifically for this type of suit are as follows:

Flotation suits tested in accordance with ISO 12402-5:2006+A1:2010 for PFD's level 50 shall be considered as Special Purpose Devices and tested in accordance with the requirements of ISO 12402-5:2009+A1:2010 and the test methods specified in ISO 12402-9:2006+A1:2011.

In addition to the tests in ISO 12402-5:2006+A1:2010, 5.6 the Encumbrance assessment test in clause 5.5.1 should be carried out.

5.5.1 Encumbrance Assessment

During the in water performance testing EN ISO 12402-5:2006+A1:2010 (Clause 5.6.3) the test subjects shall emerge from the water by climbing a distance of 2500mm up and down a vertical ladder, the suit shall drain sufficiently to avoid causing encumbrance to the test subjects.

Additionally 50N Suits should be marked in accordance with the following statement:

6.5 50N Flotation Suits

Each PFD shall be 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.

It is confirmed that this is the common sense of the experts of VG 8 and also those responsible for the Standardisation of PFD's and these papers are in the procedures of CEN and ISO.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.007 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 8	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN ISO 12402-7: 2007 and ISO 12402-7:2007 +A1:2011	☐ Other:
Article:	Annex:	Clause: 4.7	

Key words:

Hardware

Question:

The requirements and methods when testing hardware according to clause 4.7 are based on specific testing of combination of webbing and closure and not a closure test only (as intended).

Solution:

The intention of the test must be to verify the actual strength of the buckles after several exposures.

The following solution is recommended:

No buckle may fail due to webbing breakage or slippage. If failure occurs due to the webbing it is recommended that another type of webbing is used for the test.

The slippage properties for the specific webbing and closure combination are verified in clause 5.5.1, Mechanical Properties Test and partly in clause 5.6, Human Subject Performance Test.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.009 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 8	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN ISO 12402-5:2006+A1:2010 and ISO 12402-6:2006+A1:2010	☐ Other:
Article:	Annex:	Clause: 5.3.4	

Key words:

Buoyancy requirements and testing procedures for 2 piece 50N flotation suits

Question:

The following points were discussed at the last VG8 meeting on 16th June 2010 with regards to testing of 2 piece flotation suits:

1. If a manufacturer wishes to test and certify a 2 piece flotation suit, should the jacket and trousers meet the minimum buoyancy requirements as individual pieces, due to the likelihood of either piece being worn as a single item, or, can the garment just be marked that the device does not work as a PFD unless worn as a two piece set?
2. Should the individual pieces be tested in accordance with the in water performance requirements in clause 5.6 of ISO 12402-5:2006+A1:2010? i.e. the jacket is tested alone, the trousers are tested alone, and the combination of the two is tested together.

Solution:

1. Each piece of a 2 piece set must meet the minimum buoyancy requirements according to ISO 12402-5:2006+A1:2010.

   It is not satisfactory for the product only to be marked as there is always the possibility that the end user will remove either the jacket or trousers in warm/ cold temperatures.
2. Each piece of a 2 piece set must meet the in water requirements of ISO 12402-5:2006+A1:2010. The requirements must be met with both the individual garments and as a combination of a 2 piece set.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.010 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 8	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN ISO 12402-7:2007+A1:2011	☐ Other:
Article:	Annex:	Clause: 4.8, Table 12	

Key words:

Inherently buoyant material – Thickness of foam

Question:

The standard does not clearly spell out which thickness shall be tested according to EN ISO 12402-7.

This can be a potential problem e.g. if a device is manufactured with a 5 mm foam but only the foam in the thickness of 30 mm has been tested according to EN ISO 12402-7.

It is FORCE Technology´s experience that the thinner layers of foam are more likely to fail the tests mentioned in EN ISO 12402-7 than thicker layers.

May a manufacturer use a foam thickness which thickness have not been tested according to EN ISO 12402-7 or covered be a range as specified in EN ISO 12402-7, clause 4.1.2?

Solution:

No - Any type of inherently buoyant material of the same thickness as used in the device shall prove to have properties in accordance with EN ISO 12402-7:2007+A1:2011, clause 4.8 or be covered by a range according to EN ISO 12402-7:2007+A1:2011, clause 4.1.2 if the range has been successfully tested in accordance with EN ISO 12402-7:2007+A1:2011, clause 4.8.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.011 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 8	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN ISO 12402-4:2006 and ISO 12402-4:2006+A1:2010	☐ Other:
Article:	Annex:	Clause: 5.6.3.1	

Key words:

In water performance - faceplane

Question:

The standard ISO 12402-4:2006+A1:2010 has minimum in water requirements for Freeboard (min 80mm), Body angle (min 30° degrees) and face plane (min 20°).

The EN 395:1995 standard did not have a requirement for face plane.

Solution:

The requirement for face plane on a 100N device is replaced with the requirement below in order to bring it in line with the existing requirements of a 100N device under EN 395:1995.

Requirement for 100N devices:

The face plane must be positive.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.013 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 8	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN ISO 12402-7:2007+A1:2011	☐ Other:
Article:	Annex:	Clause: 4.2 and Table 1, 4.4 and Table 5	

Key words:

Webbing and Thread requirements

Question:

1. When testing thread and structural webbings in accordance with EN ISO 12402-7:2007 and EN ISO 12402-7:2007+A1:2011 is the 60% retention requirement after the exposure to accelerated weathering still relevant?
2. The current sample length requirement for structural webbings of 1200 mm is posing a problem for exposing the samples when placed in the accelerated weathering chambers. Most typical accelerated weathering chambers have a specimen mount exposing an area of approximately 100 mm x 50 mm. Therefore is it necessary to have such a long sample length?

Solution:

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 changed in Table 1 for sewing thread and Table 5 for webbings to state a minimum requirement following the accelerated weathering exposure instead of retaining 60% strength as follows:

   For sewing thread in Table 1 – Single strand breaking:

   Minimum requirement following standard conditioning = 25N

   Minimum requirement following accelerated weathering = 15N

   For structural webbing in Table 5:

   Minimum requirement following standard conditioning = 1600N

   Minimum requirement following accelerated weathering = 960N

2. No. It was agreed that it would be acceptable to use the sample length requirements in accordance with ISO 13934-1 so that the length of the sample is to be long enough to allow sufficient material to be clamped in the clamps of the tensile machine and is a minimum of 300 mm in length.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.014 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 8	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: ISO 12402-7:2007+A1:2011	☐ Other:
Article:	Annex:	Clause: 4.1.6.4 and 4.3.3	

Key words:

Colour and illumination issues

Question:

It has been found that there is a variation of results between test laboratories when carrying out tests for colour and illumination dependant on the type of equipment used. It has been suggested that there should be a tolerance to include a tolerance of ±5% for the determination of CIE co-ordinates. Is this acceptable?

Solution:

Yes. A ±5% tolerance should be used for the tests prescribed in ISO 12402-7 Clauses 4.1.6.4 and 4.3.3.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.015 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 8	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: ISO 12402-7:2007+A1:2011	☐ Other:
Article:	Annex:	Clause: 4.9 & Table 13	

Key words:

Inflation Chamber Material

Question:

Where an inflation chamber material has previously been tested and passed all of the relevant sections of Clause 4.9 and Table 13, and only a change in colour of textile has occurred, is it necessary to repeat all the tests in Clause 4.9 Table 13 on the additional colour?

Solution:

No. It is only necessary to repeat the following tests on the additional colour as these are the tests that may be affected by the change of colour:

4.9.2.1 Tensile strength test

4.9.2.2 Trapezoid tear strength test

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.016 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 8	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: ISO 12402-9:2006+A1:2011	☐ Other:
Article:	Annex:	Clause: 5.5.9, 5.5.9.3	

Key words:

Buoyancy test method

Question:

The standard currently states:

5.5.9 Buoyancy test

'If the PFD contains inflatable buoyancy, it shall be inflated through the oral inflation tube to the pressure reached by the primary means of inflation (or 1.4 kPa ± 0.1 kPa, if orally inflated). The PFD shall then be enclosed in the cage attached to the weight.'

The buoyancy test should be performed with the inflatable PFD inflated to its intended working pressure to ensure it is representative of the intended use and performance. What is the correct method to be used to determine the working pressure for inflatable lifejackets?

Solution:

The following method should be used when testing inflatable PFD's:

Proposed Method:

To determine the working pressure of the Inflatable PFD the correct size of gas cylinder should be fitted and activated by pulling the manual pull cord. The PFD shall be left for 5 min. The internal pressure of the chamber shall be measured and recorded.

This should be repeated a total of 3 times.

The working pressure of the Inflatable PFD is determined by taking an average of the 3 pressure measurements.

The 24h buoyancy test is then performed with the PFD chamber inflated by air to the determined working pressure.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.018 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 8	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: ISO 12402-6:2006+A1:2010	☐ Other:
Article:	Annex:	Clause:	

Key words:

Constant wear devices

Question:

Test Houses have been receiving several enquiries for testing of integral combinations such as Lifejacket with integrated Fall arrest Harness due to the increase in Wind Farm Activity. Such devices are a constant use device not an abandonment device.

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 12402 and Fall Arrest Harness for the relevant type of fall arrest harness (current valid versions of EN 341, EN 353, EN 354, EN 355, EN 358, EN 360, EN 361, EN 363, EN 364, EN 813, as appropriate)

This type of device is to be exempt from the donning test.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.019 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 8	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: ISO 12402-7:2007+A1:2011	☐ Other:
Article:	Annex:	Clause: 4.11.1.3	

Key words:

Oral inflation systems

Question:

Paragraph 6 under clause 4.11.1.3 for Oral inflation systems states:

'It shall not be possible to lock an oral inflation mechanism in the open or closed position. A friction fit dusk cap shall not be used to lock the mechanism open.'

Question: Is it possible to test a PFD which includes a lockable oral inflation mechanism as a Part 6, Special purpose device?

Solution:

Yes, but this should be limited to specific applications which are only to be used by specially trained persons.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.022 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 8	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN ISO 12402-7+A1:2011	☐ Other:
Article:	Annex:	Clause: 4.8.2.7	

Key words:

IRM Oil, Foam testing

Question:

1. In clause 4.8.2.7 Oil resistance of foam flotation material it references use of ASTM Reference Oil No. 2. All reference to this oil has been removed from existing tables of ISO 12402-7:2007+A1:2011. Is the use of ASTM Reference Oil No. 2 still to be used for this exposure?

2. What compliance criteria shall be used when testing in accordance with ISO 12402-7:2007+A1:2011, clause 4.8.2.7 with the Diesel exposure?

Solution:

1. Replace ASTM Reference Oil No.2 with Diesel Fuel according to EN 590 (current valid version) to be consistent with exposures throughout the standard.

2. The current compliance criteria in 4.8.2.7 to test the tensile strength of the foam following the exposure is no longer relevant as in most cases in modern PFD's the foam is encased in an outer fabric and so does not play a structural part for strength. It was agreed by VG8 that a buoyancy test is a better indication of compliance criteria as this is the primary function of inherently buoyant foam.

The following compliance criteria should be used when testing in accordance with ISO 12402-7:2007+A1:2011, clause 4.7.2.7:

<u>Sample Requirements:</u>

3 samples of foam (as per Table 12 of ISO 12402-7:2007+A1:2011)

Dimensions: 200 x 200 (min thickness of 20mm)

<u>Exposure</u>

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

<u>Requirements</u>

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.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.023 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 8	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN 13138-1,-2,-3:2008	☐ Other:
Article:	Annex:	Clause: 5.1	

Key words:

Colour requirements

Question:

In EN 13138-1,-2,-3:2008, clause 5.1 under general requirements, it states: 'For safety reasons these products shall be in high definition colours. Transparent or dull colour materials are not acceptable. It is recommended that the colour range yellow to red orange is most appropriate although two colour devices in green with white are also acceptable.'

What would be acceptable as 'high definition colours'?

Solution:

These products shall be manufactured in bright colours that are in contrast to the water surface so as to be visible at all times and at any angle when in use. Wholly transparent or materials in any shade of undecorated blue in the visible areas when in use are not acceptable. For garments these colour requirements apply only to the neck shoulder and upper chest area.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.026 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 8	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: ISO 12402-9:2006+A1:2011	☐ Other:
Article:	Annex:	Clause: 5.5.10.2.1	

Key words:

Inflation tests

Question:

There is no test method included in 5.5.10.2.1 for the inflation tests. What is the correct method to perform these tests?

Solution:

A test method should be 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 once at (+ 30 ± 1) °C.'

The following method should be used:

a) Two PFDs shall first be conditioned by exposing them for (5,0 ± 0,1) h at a temperature of (-5 ± 1) °C. The two inflatable PFDs are then inflated. One shall be activated using the automatic inflation system by placing it in sea water at a temperature of (-1 $^{+2}$) °C and the other shall be activated using the manual inflation system.

b) The two PFDs shall then be conditioned by exposing them for (5,0 ± 0,1) h at a temperature of (+30 ± 1) °C. The two inflatable PFDs are then inflated. One shall be activated using the automatic inflation system by placing it in sea water at a temperature of (+30 ± 2) °C and the other shall be activated using the manual inflation system.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.027 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 8	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: ISO 15027-1:2012 ☐ Other:

Article: Annex: Clause: 4.12.2

Key words:

Resistance to illumination

Question:

In the 2012 version of ISO 15027 there is no test to prove pass/fail criteria following the illumination test. How should this be assessed?

Solution:

The seam strength test in 4.12.3 should be carried out after the illumination 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).'*

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.028 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 8	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: ISO 15027-1:2012 ☐ Other:

Article: Annex: Clause: 4.12.2

Key words:

Thermal testing

Question:

For dual approval of immersion suits in accordance with ISO 15027 and SOLAS can one set of thermal testing be read across for both standards?

Solution:

Where thermal tests have been carried out in accordance with SOLAS requirements the results can be used in support of an ISO 15027-3:2012 approval where the test method used (i.e. temperature and exposure time) are identical to the requirements of ISO 15027-3:2012.

Where thermal tests have been carried out in accordance with ISO 15027-3:2012 requirements the results cannot be used in support of a SOLAS approval (unless the test method used for ISO 15027-3:2012 (i.e. temperature and exposure time) is identical to that in the SOLAS testing requirements). Where the test method used is not the same the tests would need to be repeated in accordance with SOLAS testing requirements.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.029 Revision 01 Language: E

Number of pages: 1	Approval stage : Approved on :
Origin : VG8	☒ Vertical Group 13.12.2017 ☒ Horizontal Committee 13.07.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☒ PPE Regulation	☒ EN/prEN: EN ISO 12402-7:2007+A1:2011	☐ Other:
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 inconsistent test methods by referencing both the Wyzenbeek Method as defined in Annex B and the Martindale Method defined in ISO 12947-2.

What is the correct method to be used and what is the compliance criterion?

Solution:

VG8 propose that the Wyzenbeek Method is the appropriate abrasion method.

As the intent of the compliance criteria is to validate the tensile strength of the material after abrasion, a tensile strength test shall be performed in accordance with ISO 13934-2 after the method defined in Annex B.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.032 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 8	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN ISO 12402-2:2006+A1:2010, EN ISO 12402-3:2006+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 level 275 and EN ISO 12402-3:2006+A1:2010 for lifejackets level 150 do the requirements for trunk angle and face plane angle relate to each individual test subject or to the average of all test subjects, as it did previously in the 2006 version of the standards?

Solution:

The requirements in clause 5.6.3.1 set the requirements for the average of all test subjects as per the original requirements of EN ISO 12402-2:2006 and EN ISO 12402-3:2006. The requirements for each individual test subject is as follows:

No individual subject's torso angle shall be less than 20° behind vertical.

No individual subject's face plane angle shall be less than 30° above horizontal.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.033 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 8	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: ISO 12402-9:2006 +A1:2011	☐ Other:
Article:	Annex:	Clause: EN ISO 12402-9:2006, clause 5.1, EN ISO 12402-9:2006+A1:2011, clause 5.5.1	

Key words:

Order of testing: Temperature cycle test and rotating shock bin test

Question:

In the standard EN ISO 12402-9:2006, clause 5.1, in the last sentence the following is stated “All tests according to 5.5 shall be carried out after submitting the samples to the temperature cycling test (see 5.5.3) and the rotating shock bin test (see 5.5.2).

In the amendment EN ISO 12402-9:2006+A1:2011 clause 5.5.1, the above-mentioned sentence was deleted and Table 1 and Table 2 were added.

What is the correct order for testing?

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.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.034 Revision 01 Language: E

Number of pages: 3	Approval stage : Approved on :
Origin : VG8	☒ Vertical Group 05.10.2018 ☒ Horizontal Committee 13.03.2019 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: ISO 12402-7:2007+A1:2011 ☐ Other:

Article: Annex: Clause: 4.9

Key words:

Unsupported Inflation Chamber Materials

Question:

There are currently certified inflatables within the United States and Canada incorporating a design that doesn't use a PU coated nylon as the inflation chamber. The design in question utilizes a thicker layer of PU that acts as the inflation chamber independently. The material is RF welded no differently than standard inflation chambers, however it is allowed to "float" within a separately sewn cover material. This product has had great success within the US and Canada based on its very simplistic design. The US and Canadian standards have already been updated to test this material since most of the material tests for standard inflation chamber material isn't relevant for this material. We are now receiving requests for certification to ISO 12402-7 so that devices can obtain the CE Mark.

Solution:

Since there are currently no requirements within ISO 12402-7, it is proposed that the following test program be approved by the VG8. The proposal includes a new Table to include the new requirements. The requirements are consistent with the US and Canada except that all the ASTM standards have been replaced with the equivalent ISO standards and the Cold Cracking temperature has been raised to -30 from -56 °C.

Proposal follows on pages 2 and 3.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.035 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 8	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN ISO 12402: 2006+A1:2010 Parts 2-6	☐ Other:
Article:	Annex:	Clause: n/a	

Key words:

Pouch type PFD's

Question:

Is it possible to approve a pouch type PFD as a Lifejacket?

Solution:

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.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.036 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 8	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN ISO 15027-1:2012 & EN ISO 15027-2:2012	☐ Other:
Article:	Annex:	Clause: 4.12	

Key words:

Preconditioning of immersion suit material samples

Question:

In ISO 15027 for immersion suit samples the temperature cycling and rotating shock bin test be carried out first prior to all other tests but does this also apply to the material samples too when performing the tests from clause 4.12?

Solution:

Yes

All material samples must go through the temperature cycling test as a preconditioning to all the individual material tests in clause 4.12, but the rotating shock bin test is not applicable for the material samples.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.038 Revision 00 Language: E

Number of pages: 324	Approval stage : Approved on :
Origin : VG8	☒ Vertical Group 13.12.2017 ☒ Horizontal Committee 13.07.2018 ☒ EU PPE Working Group 05.11.2018

Question related to ☒ PPE Regulation	☒ EN/prEN: EN ISO 12402-6:2006+A1:2010	☒ Other:

Article: Annex: Clause: 5.4

Key words:

PFDs for fire fighting

Question:

What compatibility testing is to be carried out for PFDs specifically intended for fire fighting application?

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.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.041 Revision 01 Language: E

Number of pages: 2	Approval stage : Approved on :
Origin : VG8	☒ Vertical Group 13.12.2017 ☒ Horizontal Committee 13.07.2018 ☒ EU PPE Working Group 05.11.2018

Question related to ☒ PPE Regulation ☒ EN/prEN: EN 14225-1:2017 ☐ Other:

Article: Annex: Clause:

Key words:

Surface wetsuit testing requirements

Question:

Wetsuits intended for surface activities such as water skiing etc. are classified as PPE risk category II (see PPE Guidelines Oct 15 and PPE Working Group minutes from 2013) and therefore require EC type-examination and a CE mark. There is currently no technical standard which covers surface wetsuits, only EN 14225-1 which is for diving wetsuits.

What testing requirements are to be used to show compliance with the basic health and safety requirements laid down in Annex II of the PPE Regulation (EU) 2016/425?

Solution:

The standard for EN 14225-1 shall be used with exemptions of those requirements specific for diving application.

Therefore wetsuits intended for surface activities shall comply with the following clauses of EN 14225-1 (see Table overleaf).

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.042 Revision 00 Language: E

Number of pages: 1	Approval stage : Approved on :
Origin : VG8	☒ Vertical Group 13.12.2017 ☒ Horizontal Committee 13.07.2018 ☒ EU PPE Working Group 05.11.2018

Question related to	☒ PPE Regulation	☒ EN/prEN: EN ISO 12402 Parts 2-5, Clause 5.5.10.2.3 EN ISO 12402-9:2006+A1:2011, Clause: 5.5.9.3f)	☐ Other:
Article:	Annex:	Clause: See above	

Key words:

Force to inflate test for inflatable PFD's

Question:

There is currently no load requirement in EN ISO 12402 Parts 2-5 for the force to manually activate the inflation mechanism when incorporated on an inflatable PFD when testing in accordance with EN ISO 12402-9:2006+A1:2011, Clause: 5.5.9.3f)?

Solution:

The load required to manually activate the inflation mechanism on an inflatable PFD should be between 13N and 120N.

A higher upper load is required to activate the manual inflation mechanism incorporated on the PFD than that on the inflation mechanism component test, as on the end product there are additional resistance factors to be considered such as being packed inside a cover, zipper cover closures etc.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.043 Revision 02 Language: E

Number of pages: 1	Approval stage : Approved on :
Origin : VG8	☒ Vertical Group 16.05.2018 ☒ Horizontal Committee 13.07.2018 ☒ EU PPE Working Group 05.11.2018

Question related to	☒ PPE Regulation	☒ EN/prEN: EN ISO 12402-5:2006/A1:2010	☐ Other:
Article:	Annex:	Clause: N/A	

Key words:

PFD Hydration Pack

Question:

Manufacturers may look to include a hydration pack built into or designed to be used with a manufactured PFD which is to be compliant with PPE Regulation 2016/425 and EN ISO 12402-5:2006/A1:2010. The hydration pack would serve as a store for liquid drinks used during activities such as Paddle boarding, Kayaking, Sailing. Currently no testing is specified for how to address any additional risks posed by the inclusion of a hydration pack within the PFD.

What additional testing or evaluation should be conducted to ensure hydration packs do not affect performance of the PFD?

Solution:

The following tests are to be conducted on the PFD with the hydration pack incorporated:

- Buoyancy test (Clause 5.3.4.2 of EN ISO 12402-5:2006+A1:2010 and tested according to 5.5.9 of EN ISO 12402-9:2006+A1:2011): to be carried out with the hydration pack filled with water to ensure that minimum buoyancy provided is not affected.
- In-water testing (Clause 5.6.3 of ISO 12402-5:2006/A1:2010 and tested according to clause 5.6 of EN ISO 12402-9:2006+A1:2011): to be carried out with the hydration pack filled with water and also inflated fully with air (through blowing into device). All in water performance requirements should be met;
- Donning test (Clause 5.6.2 of ISO 12402-5:2006+A1:2010 and tested according to clause 5.6.4 of EN ISO 12402-9:2006+A1:2011): to be carried out to ensure that donning is not unduly affected by the presence of the Hydration pack when full of water.

Note, for PFD's other than level 50 that have a built hydration pack or designed to be used with a hydration pack, the relevant clauses for buoyancy, donning and in water performance should be satisfied in the relevant parts of ISO 12402 parts 2-4.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/08.044 Revision 01 Language: E

Number of pages: 1	Approval stage : Approved on :
Origin : VG8 (July 2018)	☒ Vertical Group 05.10.2018 ☒ Horizontal Committee 15.09.2019 ☒ EU PPE Working Group 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 clause 7.1 for information to be supplied with the suit. This requirement has the text from clause 7.2 (Customer information to be supplied at the point of sale) duplicated as an editorial error. What information should be supplied for clause 7.1?

Solution:

To satisfy PPE Regulation annex II 1.4, the previous requirements of EN 14225-2:2005, clause 7.1 shall be used, as follows:

- Name and address of the manufacturer and/or his authorised representative;
- Type of suit;
- Number of this document;
- List of all the components supplied;
- If the inflation hose is provided with a restrictor to limit airflow, a statement to this effect;
- List of accessories and spare parts that are available;
- Explanation of any pictograms and markings.

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 PPE-R/	Version	Reference	Keywords	Approved by Vertical Group 9	Approved by Horizontal Committee	Endorsed by PPE Working 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
09.010	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

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/09.002 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 9	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 22.04.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: 1621-2: 2014	☐ Other:
Article:	Annex: II	Clause: 4.6 Sizing	

Key words:

Motorcyclists back protector sizing intervals

Question:

EN 1621-2: 2014 clause 4.6 Sizing, states “The waist to shoulder length, expressed in centimetres shall be specified as a range up to max. 5cm.”

Should this maximum 5cm range be the number of centimetres between the minimum and maximum value claimed (e.g 45 – 50cm) OR should this maximum 5cm include both the maximum and minimum values (e.g 45 – 49cm)?

Solution:

Providing that there is an ‘overlap’ in the sizing across the range of available sizes (for example Size S = 45 – 50cm, Size M = 50 – 55cm) it would be considered acceptable for the 5cm range to be the number of centimetres between the maximum and minimum value claimed. However, if no ‘overlap’ in values is present or only a single size of protector is available, (for example Size S = 45 – 50cm, Size M = 51 – 56cm) the 5cm range should include both the minimum and maximum value claimed.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/09.004 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 9	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 22.04.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN 14021: 2003 & EN 1621-1: 2012	☐ Other:
Article:	Annex:	Clause:	

Key words:

Elbow protectors in addition to stone shields for motorcycle riders

Question:

EN 14021: 2003 (stone shields) further to chest protectors covers also shoulder and back protectors. However, sometimes, this device is offered to the market with elbow protectors connected to it.

Which standard has to be referred to when it comes to type approval and certification?

Solution:

The additional elbow protectors have to comply with the requirements of their dedicated standard EN 1621-1: 2012

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/09.005 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 9 / Ricotest	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 22.04.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 1621-1: 2012 & EN 1621-2: 2014 ☐ Other:

Winter Sports Protectors

Article: Annex: Clause:

Key words:

Impact protectors for use in motorcycling AND skiing

Question:

Considering that no dedicated harmonised standard is currently available for back & limb protectors in winter sports: How to test and certify back & limb protectors intended not only for motorcycle use but also for use in skiing and snowboarding?

Solution:

Testing:

The protector must completely satisfy the requirements of EN 1621-2: 2014 and EN 1621-1: 2012, and in addition to full compliance with the relevant EN 1621 testing requirements being obtained for the mandatory ambient and wet impact conditions, additional impact testing at "- 20°C" and not "- 10°C" should also be carried out. The duration of the conditioning at -20°C shall be a minimum of 24 hours, and the testing shall be done at lab conditions within 5 min from the removal of the sample from the cold chamber.

Certification:

A common certification for use in motorcycling and winter sports is possible. The use of an additional "skier" pictogram can be accepted. The overall classification level claimed shall be based on the lowest impact performance level achieved for any of the pre-conditions during assessment.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/09.009 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : CEN/TC 162/WG 9 Meeting 04/06/2013	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 22.04.2019

Question related to Wet Impact Test After Hydrolytic Ageing	☐ PPE Regulation	☒ EN/prEN: EN 1621-1:2012 & EN 1621-2:2014	☐ Other:
Article:	Annex:	Clause: 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 clause 6.3.4.3 and 1621-2 clause 5.1.6.2?

Solution:

The sample should be stored to allow water to drop out within the sealed bag.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/09.010 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : SATRA (UK)	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 22.04.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 16027: 2011 ☐ Other:

Impact Testing

Article: Annex: Clause: 5.6 Impact Strength

Key words:

Protective Goal Keepers Gloves, Impact Strength

Question:

The standard EN 16027: 2011 details the test apparatus required for Impact Strength testing in 5.6.1 and the procedure for this test in clause 5.6.2.

Although clause 5.6.2 details the impact energy that should be used to carry out this assessment, neither the list of apparatus (clause 5.6.1) nor the procedure (clause 5.6.2), specify the weight of the carriage which should be used.

Is it possible to use any weight carriage to carry out this test, providing that the correct drop height has been calculated prior to testing to obtain the impact energy specified in the standard?

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.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/09.012 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 9	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 22.04.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 1621-1: 2012 ☐ Other:

User Information

Article: Annex: Clause: 8

Key words:

Information by the manufacturer

Question:

The instruction for use shall contain according to clause 8.e.2 the performance of impact attenuation:

1) Is it sufficient if at least the highest (poorest) result according to clause 6.3.4 (ambient, wet, high and low temperature test) is mentioned?
2) Instead of the exact recorded value obtained during type approval, is it acceptable that the manufacturer states at least the minimum requirement value given by the standard for the claimed performance level?

Solution:

1) Yes, because this value (e.g. mean value for wet test) determines the performance level in the marking.
   More results can be given if desired by the manufacturer.
2) No. This would not be acceptable.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/09.013 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 9	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 22.04.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 13594: 2015 ☐ Other:

Tear Strength

Article: Annex: Clause: 4.6

Key words:

Tear Testing, Determination of Pass / Fail, Protective Overlays

Question:

EN 13594: 2015 requires 3 samples of each material type used in the protective layer to be tested for tear, and that the lowest result on a single test piece shall comply with the performance requirements.

1) The current wording suggests that each material type / layer of materials that forms the protective layer must be tested individually. Is this correct?
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 of RfU PPE-R/	Version	Reference	Keywords	Approved by Vertical Group 10	Approved by Horizontal Committee	Endorsed by PPE Working Group
10.001	01	EN ISO 20345: 2011, EN ISO 20346: 2014 and EN ISO 20347: 2012	Obsolescence	21-4-2018	21-4-2018	29-11-2019
10.003	01	EN ISO 20345: 2011, EN ISO 20346: 2014 and EN ISO 20347: 2012	Outsole without continuity	21-4-2018	21-4-2018	07-02-2020
10.004	01	EN 15090: 2012	Insulation against heat, assessment, deformation	21-4-2018	21-4-2018	29-11-2019
10.005	01	EN ISO 20345:2011, EN ISO 20346:2014, EN ISO 20347: 2012	Synthetic upper materials on classification I footwear	21-4-2018	21-4-2018	29-11-2019
10.006	01	EN 13287:2012	Slip resistance, curved outsoles	21-4-2018	21-4-2018	29-11-2019
10.007	01	EN ISO 20347: 2012	Water resistance test duration	21-4-2018	21-4-2018	29-11-2019
10.008	01	EN ISO 20344: 2011	Key words: Penetration resistant inserts dimensions, coverage area	21-4-2018	21-4-2018	29-11-2019
10.009	01		Innocuousness AZO Dyes	21-4-2018	21-4-2018	29-11-2019
10.011	01	EN ISO 20344: 2011	Water absorption / desorption, cotton gauze	21-4-2018	21-4-2018	29-11-2019
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: 2012	Certification, vamp lining mandatory	21-4-2018	21-4-2018	29-11-2019
10.015	01	EN ISO 13287: 2012	Slip resistance	21-4-2018	21-4-2018	29-11-2019
10.017	01		Overshoe, slip resistance	21-4-2018	21-4-2018	29-11-2019
10.018	01	EN ISO 20345:2011 cl. 6.2.7 EN13634:2010	Ankle Protection , how many areas per shoe	21-4-2018	21-4-2018	29-11-2019
10.019	01		Orthopedic changes on safety and occupational footwear	21-4-2018	21-4-2018	29-11-2019
10.020	01	EN ISO 20345: 2011 and EN ISO 20347: 2012	Water vapour permeability (WVP), quarter lining	21-4-2018	21-4-2018	29-11-2019
10.021	01	EN ISO 20344:2011	Outsole cracking	21-4-2018	21-4-2018	29-11-2019
10.024	01	EN ISO 13287: 2012	Penetration resistance, slip resistance	21-4-2018	21-4-2018	29-11-2019
10.025	01	EN ISO 20346: 2014		21-4-2018	21-4-2018	29-11-2019
10.026	01	EN 13832-1:	Stocking, degradation test	21-4-2018	21-4-2018	29-11-2019

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 20345:2011	Water absorption / desorption	21-4-2018	21-4-2018	29-11-2019
10.029	01	EN ISO 20345: 2011, EN ISO 20346: 2014 and EN ISO 20347: 2012	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

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.001 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : France	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 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: 8	

Key words: Obsolescence

Question:

In the standards EN ISO 20345: 2011, EN ISO 20346: 2014 and EN ISO 20347: 2012 clause 8.1 it is written:

"Safety footwear shall be supplied to the customer with information written at least in the official language(s) of the state of destination. All information shall be unambiguous. The following information shall be given:

7) obsolescence deadline or period of obsolescence"

The obsolescence deadline is difficult to assess by the manufacturer. It is possible to give a limit when the products are stored by the manufacturer himself because he knows the conditions. But, when the products are stored by a retailer or the customer, it is very difficult to give figures.

The problem is more critical with polymeric boots (PU, due to hydrolysis…)

French manufacturers try to define this limit period but they have had information from Italy that it is possible to avoid to answer to this point of the standard with a sentence like: "Due to several factors, humidity, changes in the materials in the time, it is not possible to give a date of obsolescence."

This sentence is not conform to the standard, but conform to the regulation.

Does that mean that CE marking is possible but reference to the standard impossible?

Solution:

To avoid inconsistent information, VG 10 proposes to give the following text to help the person that puts the product on the market:

"When stored under normal conditions (light, temperature, and relative humidity), the obsolescence date of a footwear is generally:

- 10 years after the date of manufacturing for shoes with upper leather, rubber and thermoplastic materials (such as SEBS etc) and EVA
- 5 years after the date of manufacturing for shoes including PVC
- 3 years after the date of manufacturing for shoes including PU and TPU

However, these durations are medium values. It is the responsibility of the manufacturer to determine them.

Higher periods of validity can be accepted by the Notified Body if the manufacturer can provide supporting evidence (tests, experience).

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.003 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : INESCOP / CTC	☒ Vertical Group 21-04-2018 ☒ Horizontal Committee 15-09-2019 ☒ EU PPE Working Group 07-02-2020

Question related to ☐ PPE Regulation ☐ PPE Guidelines	☒ EN/prEN: EN ISO 20345: 2011, EN ISO 20346: 2014 and EN ISO 20347: 2012	☐ Other:
Article:	Annex:	Clause:

Key words: Outsole without continuity

Question:

How should footwear with outsoles consisting of several different materials be assessed when testing to EN ISO 20345: 2011, EN ISO 20346: 2014 and EN ISO 20347: 2012? This may be footwear with one outsole material type covering the forepart, another covering the heel and a different material (such as a cellular material from the midsole) in the waist area. Alternatively, it could be a more intricate outsole design such as shown in the picture below

Solution:

Any construction should be accepted provided that all of the visible outsole materials (including those in the waist area or other areas not in direct contact with the ground) comply with the resistance to fuel oil outsole requirements when this is claimed. For all other outsole requirements these shall only be tested on visible materials that are not touching the ground where a specimen can be obtained from the footwear sample. (Note: All materials in contact with the ground or for example a ladder rung shall be fully tested)

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.004 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : INESCOP	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 15090: 2012 ☐ Other:

Article: Annex: Clause:

Key words:

Insulation against heat, assessment, deformation

Question:

Sometimes during the test the outsole swells significantly modifying the area in contact with the hot plate. When the test is finished there are two possibilities:

- When the outsole cools down the swelling disappears.
- When the outsole cools down the swelling remains there, but maybe reduced.

The question is how to assess the test itself - The swelling impedes the normal contact (heat transfer) between the plate and the footwear so is swelling acceptable whilst in the sandbath?

Also are signs of melting acceptable?

Solution:

If the vertical position of any part of the footwear upper increases by more than 10 mm during the test this is a sign that the contact area with the hotplate could have been affected (reduced) and the footwear will be considered to have failed.

Alternatively, a frame (or similar mechanism) could be placed over the boot to hold it in place during the test. The frame should not be applying a downward force to the boot at the start of the test but would restrict any upwards movement during the test. This way, any potential “swelling” during testing could be prevented, as well as the resulting loss of contact of the outsole with test surface.

Either way signs of material melting should be considered as a sign of non-compliance

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.005 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : CTC	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN ISO 20345:2011, EN ISO 20346:2014, EN ISO 20347: 2012	☐ Other:
Article:	Annex:	Clause:	

Key words:

Synthetic upper materials on classification I footwear

Question:

Class I footwear models with synthetic material on upper which are used as decorative component or for design (PU, reflective tape...) are widespread. This kind of material is usually used for small surfaces : see orange and black components on pictures for example

Regarding to the EN ISO 20345: 2011 standard (§5.4) these components must be tested as upper components but the water vapour coefficient and permeability is not conform because of the component quality

Is it possible to certify these models to EN ISO : 2011 classification I ?

Solution:

Certification in class I is possible provided that the overlay components (that do not meet the water vapour coefficient and permeability requirements):

1. For Design A - Account for no more than 40% of the whole area of the upper (excluding the collar) – see # below
2. For Designs B, C or D - Account for no more than 10% of the whole area of the upper (excluding the toe cap, counter and collar)
3. Always cover an upper material that is fully compliant with EN ISO 20345/6/7

(Point 3 does not apply to materials covering the toe cap and the counter)

For information, note that that in general for design A footwear the toe cap and counter areas typically account for around 30% of the total upper area

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.006 Version 01

Number of pages: 2	Approval stage : Approved on :
Origin : TUV	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 13287:2012 ☐ Other:

Article: Annex: Clause:

Key words:

Slip resistance, curved outsoles

Question:

How best to carry out slip resistance testing of samples with curved outsoles?

Solution

One possible solution (which is dependent on design of the machine) is to adjust the 7 °angle on the testing device for the heel mode based on this central vertex without using the wedge – see photographs below


7° top
7° heel
0° flat

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.007 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : TUV / PFI / INESCOP	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN ISO 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 requirement for Water resistance according to EN ISO 20344, 5.15.2 is 3 cm^2 after 15 minutes. But this is different to that stated in EN ISO 20344: 2011 and EN ISO 20345: 2011 as follows:

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 recommended way to proceed for notified bodies against this background?

Solution:

Notified bodies should take the 80 minutes, as it says in EN ISO 20345: 2011.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.008 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : CIOP-PIB	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN ISO 20344: 2011 ☐ Other:

Article: Annex: Clause: 5.8.1

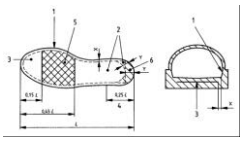
Key words: Penetration resistant inserts dimensions, coverage area

Question:

According to clause. 5.8.1 of EN ISO 20344:2011 “Section the footwear and measure the distances X and Y being the distances between the edge of the insert and the line left by the feather edge of the last.....” (figure below)

The questions are:

- 1. In which places shall the footwear be cut?
- 2. How many cuts shall be made?
- 3. How many measurements of distance X and Y shall be made?



Solution:

It should be noted that the requirement applies to the whole perimeter of the insert but at least the following four points should be checked by cutting into the sample:

1. The footwear shall be cut at - The heel; The forepart; The waist and The toe cap area
2. Four – please see answer 1 above
3. Three of X and one of Y

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.009 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : CIOP-PIB	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☐ EN/prEN: ☐ Other:

Article: Annex: Clause:

Key words:

Innocuousness AZO Dyes

Question:

For which materials in footwear should the Notified Body require the test reports proving that the content of azo dyes listed in the directive 2002/61/EC is in accordance with the requirements?

Solution:

It should be noted that the PPE Regulation 2016/425 does not differentiate between materials likely to come into skin contact and those not likely. However, as a minimum, all materials present on the inner surface of the footwear should be assessed. Consideration should also be given to all other hazardous substances listed in Annex 17 of REACH.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.011 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : INESCOP	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: 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/polyamide (50/50) gauze conforming with the standard. Three standards that use this method (IUP-11 (heavy leather), EN 12746: 2000 (insoles/insocks) and EN ISO 5404 : 2011(heavy leather)) just mention “cotton gauze”. However, EN ISO 20344 states that a cotton gauze shall be used, but it then specifies that a cotton gauze consisting of cotton and polyamide is required.

What is the recommended way to proceed for notified bodies against this background?

Solution:

The gauze is used to distribute water evenly and its composition is not critical. This is why no standard defines the gauze in a very precise way.

Hence use a cotton gauze that is only made of cotton. This should have a mass/ unit area of 60.5 g/m^2 (as stated in the standard but with the tolerance increased to ± 10 g/m^2) – this is readily available.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.012 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : INESCOP	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 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 penetration can only be detected if the insock is removed. Water makes the insole wet, but it does not penetrate to the upper side of the insock, which could prevent water penetration from being detected. What should be done?

Solution:

On finishing the test, the insock shall be removed to visually inspect the area for dampness and determine if the footwear complies with the requirement.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.014 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : Inescop	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN ISO 20347: 2012 ☐ Other:

Article: Annex: Clause:

Key words:

Certification, vamp lining mandatory

Question:

When revising EN 347 it was decided that the vamp lining did not need to be mandatory, since there was no toecap. For that reason in EN ISO 20347:2004 there was an "O" in Table 2.

However when revising the 2004 version there was an "X" for vamp lining in the 2012 version. As it is now it is not possible to mark 20347 not fulfilling the requirements for vamp lining.

What is the recommended way to proceed for notified bodies against this background?

Solution:

Notified bodies should consider the “X” to be an “O”.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.015 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : TC161/WG3	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN ISO 13287: 2012 ☐ Other:

Article: Annex: Clause: 5 & 6 and Figure E.1

Key words:

Slip resistance

Question:

1. It has been noted that EN13287 now indicates a requirement of 2 conditioning periods of 48 hrs; firstly to condition samples prior to testing (5.2) and secondly after preparation but before testing (7.1.7 re. footwear and 7.2.5 re. flooring), however, this is deemed unnecessary and excessive if alternate appropriate consideration is taken.

2. Figure E.1 does not align precisely with the text in E.4.3; the text in E.4.3 is correct and the figure should be amended.

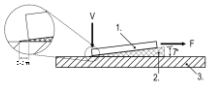
What is the recommended way to proceed for notified bodies against this background?

Solution:

1. Clauses 7.1.7 and 7.2.5 are identically worded except for the words footwear (7.1.7) and floor (7.2.5) are interchanged. It is recommended that the wording of these clauses should be interpreted as reading:

   Condition the *item of footwear/floor* in accordance with 5.2 prior to the first test. The *item of footwear/floor* will not need to be re-conditioned *following the initial conditioning (5.2) or* between tests (e.g. different test modes or different surfaces) providing it is not removed from the standard test atmosphere. *The footwear/floor however should be allowed approximately 15 minutes to recover following preparation*.

2. Refer to amended figure below:



	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.017 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : CIOP-PIB	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☐ EN/prEN: ☐ Other:

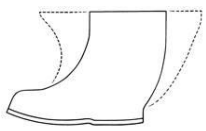
Article: Annex: Clause:

Key words:

Overshoe, slip resistance

Question:

1. Should electrically insulating overshoes (worn over classical footwear) meet the requirement for slip resistance?
2. Can an overshoe or overboot be certified to and marked with EN ISO 20345: 2011; EN ISO 20346: 2014 and EN ISO 20347: 2012?



Solution:

1. Yes, this type of footwear shall be tested for slip resistance (unless not required by the risk assessment) but consideration should be given to the interaction between the overshoe and the footwear being worn inside. Also all other relevant BHSR (innocuousness, ergonomics etc) should be addressed.

2. No the scope of the standard does not include this type of product and the standard does not consider the interaction between the overshoe or overboot and the footwear being worn inside. Additionally the performance of any closing system, ergonomics and fitting is not addressed by EN ISO 20345/6/7.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.018 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : PFI	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN ISO 20345:2011 cl. 6.2.7 EN13634:2010	☐ Other:
Article:	Annex:	Clause:	

Key words:

Ankle Protection , how many areas per shoe

Question:

1. In EN ISO 20345: 2011 no requirements for the protective area of ankle protection are given.
2. In EN ISO 13634: 2010 the picture seems that the area X is only at the outer side of the footwear.

What is the recommended way to proceed for notified bodies against this background?

Solution:

1. It is defined in EN ISO 20344: 2011 Clause 5.17 that both sides of the ankle (ie inner & outer) of each left & right foot shall be protected and tested.

2. If ankle protection is claimed, protection must be provided (and tested) on both the outer and inner side of both left and right pieces of footwear.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.019 Version 01

Number of pages: 2	Approval stage : Approved on :
Origin : TUV	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☐ EN/prEN: ☐ Other:

Article: Annex: Clause:

Key words:

Orthopedic changes on safety and occupational footwear

Question:

With reference to EN ISO 20345: 2011 and EN ISO 20347: 2012, which tests are necessary for the assessment of orthopedic change?

Solution:

see annex

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.020 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : IFA-Germany and PZ Haan BG BAU-Germany	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 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 permeability (WVP), quarter lining

Question:

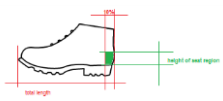
A quarter lining can consist of more than one material; e.g. quarter lining and heel grip. According to EN ISO 20345: 2011 and EN ISO 20347: 2012 all tests of clauses 5.5.1 up to 5.5.5 are required. Is the test of WVP (Clause 5.5.3) necessary?

Solution:

The test is considered to have no value (hence unnecessary).

No test of WVP is required for materials used in the defined counter area:

Note – Height of defined region to be as given in in the “Design A” column of Table 10 in EN ISO 20345: 2011



If there is no stiffener or the stiffener is perforated, the material shall comply also WVP.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.021 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : IFA Germany	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN ISO 20344:2011 ☐ Other:

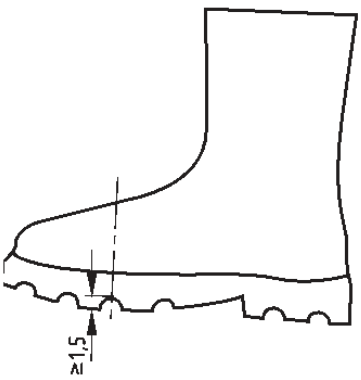
Article: Annex: Clause:

Key words:

Outsole cracking

Question:

The figure B.1 in annex B does not correspond to the title: outsole cracks

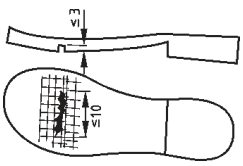


corresponding to cleat height

What is the recommended way to proceed for notified bodies against this background?

Solution:

Follow figure corresponding to outsole cracks.



	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.024 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : TC161/WG3	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN ISO 13287: 2012 ☐ Other:

Article: Annex: Clause:

Key words:

Penetration resistance, slip resistance

Question:

In terms of the footwear, slip resistance is dependent on factors such as soling material type and cleat design also the density, hardness and colour of the wearing surface compound. It is considered that this information may be valuable when analysing any future differences in slip resistance data in which case what is the best way to clearly define the test specimen to enable any trends or changes to be identified and monitored?

Solution:

For information purposes only, EN 13287 slip resistance test reports should include a colour photograph of the outsole submitted for test which clearly shows the tread design and also colour plus test data for the hardness of the material of the wearing face in contact with the ground.

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 does not list a requirement to include the density of the outsole as it is a destructive test and for other reasons of practicality)

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.025 Version 01

Number of pages: 3	Approval stage : Approved on :
Origin : PFI	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 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 20346:2014.

What is the recommended way to proceed for notified bodies against this background?

Solution:

Take into account the following proposals for the editorial changes.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.026 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : CTC	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 13832-1: 2006 ☐ Other:

Article: Annex: Clause:

Key words:

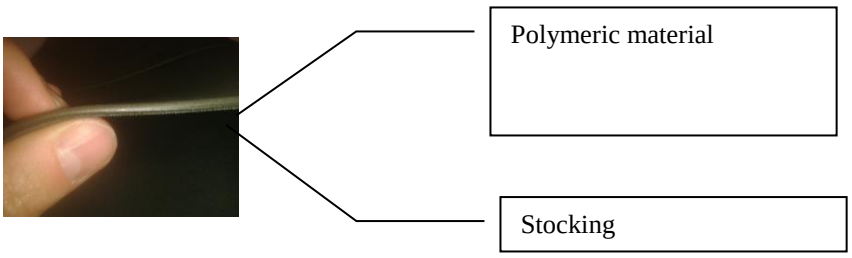
Stocking, degradation test

Question:

In clause 4.2.3 of EN 13832-1: 2006 - footwear protecting against chemicals - there is a procedure for the preparation of samples for degradation test that states "the lining shall be removed"

Standard EN ISO 20345 : 2011, table 2, includes a note to say that the “stocking covering the last before the moulding process is not considered as a lining"

Below is a picture of a cross section of polymeric footwear with a stocking. - So the question is :- Should this stocking be considered as a lining and be removed before testing or should it be left in place for the degradation test ?



Solution:

If the removal of the stocking damages the sample, it is recommend to test the full complex including the stocking but if the stocking can be removed without damaging the sample then this should be done.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.027 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : PFI	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN ISO 20345:2011 (EN ISO 20346: 2014)	☐ Other:
Article:	Annex:	Clause:	

Key words:

Toe cap, cracks

Question:

Question 1 - EN ISO 20345:2011 clause 5.3.2.3 includes the following requirement for assessment of toe caps following the impact test - "In addition, the toe cap shall not develop any cracks which go through the material, i.e. through which light can be seen." However, the same acceptance criteria is not included in Clause 5.3.2.4 for assessment of the toe cap after the compression test – should it be?

Question 2 - In EN 12568: 2010 clauses 4.2.4, 4.2.4 and 4.4 the presence of any sharp edges in the toe caps after testing is assessed. During footwear testing to EN ISO 20345: 2011 clauses 5.3.2.3 and 5.3.2.4 sharp edges also may occur but there is no requirement to consider these or similar injurious surfaces produced – Should there be?

Solution:

1) Yes - Following compression testing of footwear to EN ISO 20345: 2011 clause 5.3.2.4 –the following additional criteria shall be applied "In addition, the toe cap shall not develop any cracks which go through the material, i.e. through which light can be seen."

2) Yes Further to testing in accordance with EN ISO 20345: 2011 clauses 5.3.2.3 and 5.3.2.4, the sample shall be assessed and rejected if it is damaged in such a way that it could potentially injure the user (for instance sharp edges, delamination or splinter).

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.028 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : CTC	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN ISO 20345:2011 ☐ Other:

Article: Annex: Clause:

Key words:

Water absorption / desorption

Question:

In an item of safety footwear manufactured with a full lining, which covers the quarter part but which is also used under the insock,. (ie this material is placed between the insock and insole as a full sock as is sometimes found on firefighters footwear), if this lining material is used with a full insock, removable and water permeable ,as defined in table 3 of EN ISO 20345 : 2011, which testing scenario shall be followed?

- Perform the water absorption / desorption on insole only
- Perform the water absorption / desorption on this “lining” material
- Perform the water absorption / desorption on both insole and “lining” material

Solution:

If the insock includes an impermeable membrane, water absorption / desorption can be performed on the “lining” material only. However if the lining does not include an impermeable membrane, the test piece shall include the lining and the insole together.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.029 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : PFI	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN ISO 20345: 2011, EN ISO 20346: 2014 and EN ISO 20347: 2012	☐ Other:
Article:	Annex:	Clause:	

Key words:

Open heel region

Question:

According to EN ISO 20345: 2011, EN ISO 20346: 2014 and EN ISO 20347: 2012 an open heel region is allowed with design A footwear. However shoes with an open heel region may not fit the feet correctly so could easily be lost during the walking movement. This is especially critical for ergonomic features and for slip resistance meaning BHSR 1.1.1 and 1.3.1 may only be partly fulfilled, if there is no feature to hold the footwear on the feet. What could be done to address this concern?

Solution:

When a heel strap is present that can be moved – for instance onto the front part as shown above, a warning shall be included in the user information to instruct the wearer to configure the strap round the back of the foot during use.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.030 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : SATRA	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☐ EN/prEN: ☐ Other:

Article: Annex: Clause:

Key words:

Overshoes without heel section – slip resistance

Question:

If an overshoe such as shown above is designed (and claims) to provide only toe protection can it be certified?

The question arises because the overshoe does not cover the complete outsole, hence assessment of slip resistance (particularly in the heel area) is meaningless as it will depend on the footwear being worn underneath.

Solution:

Yes this product is considered to be PPE and can be certified to the Regulation 2016/425 for toe protection (impact & compression) only – Note when evaluating internal clearance it will be necessary to test the overshoe with an item of footwear with an outsole thickness equivalent to the maximum recommended by the overshoe manufacturer. Other properties such as ergonomics (when worn in combination with a recommended item of footwear), corrosion resistance (where relevant) and strength of the strap shall also be considered. The user information shall include warnings explaining that the product does not provide slip resistance and the products shall not be used in an environment where slip resistance is required.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.031 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : Intertek	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☐ EN/prEN: ☐ Other:

Article: Annex: Clause:

Key words:

Certification of a sandal

Question:

Could this sandal be certified to EN ISO 20347:2012?

Solution:

Yes, provided the footwear meets the claimed requirements. Hence not S1 or O1 because the seat region is not closed

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.032 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : INESCOP	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: EN 15090: 2012 ☐ Other:

Article: Annex: Clause:

Key words:

Insulation against heat, sandbath

Question:

On some occasions, when conducting the test at 250ºC, nothing special was noticed during the 45 minute of testing, but when the sample was removed from the sandbath, ignition (without a flame) could be observed at certain locations on the sole. There was continuous and localised smoke on that spot and sometimes it was necessary to use water to extinguish it. How should this be considered?

Solution:

When there is localised smoke, this means that there has been ignition and the flame test criterion should also be applied (EN 15090:2012, clause 6.3.3.).

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.045 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : RICOTEST	☒ Vertical Group 18-12-2002 ☒ Horizontal Committee 15-09-2019 ☒ EU PPE Working Group 07-02-2020

Question related to ☐ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: EN ISO 20345:2011/EN 15090:2012 ☐ Other:

Article: Annex: Clause: 5.8.1.3 (EN ISO 20345); 6.7.1 (EN 15090)

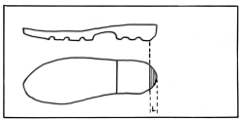
Key words: Heel shape

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 ~~than~~ small linear cleats in the heel area

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.046 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : BG 24 D. Opara	☒ Vertical Group 18-12-2002 ☒ Horizontal Committee 15-09-2019 ☒ EU PPE Working Group 07-02-2020

Question related to ☒ PPE Regulation ☐ PPE Guidelines ☐ EN/prEN: ☐ Other:

Article: Annex: Clause:

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 used to test the footwear against the same risk.

The technical file shall take into account the essential requirement of the Regulation (EU) 2016/425 (e.g. sizing, innocuousness….).

Without these 2 assessments certification is impossible.

The EU type examination certificate is given on the basis of the Regulation.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.049 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : CTC	☒ Vertical Group 10-02-2005 ☒ Horizontal Committee 15-09-2019 ☒ EU PPE Working Group 07-02-2020

Question related to ☐ PPE Regulation ☐ PPE Guidelines		☒ EN/prEN: EN ISO 20345:2011; EN ISO 20346:2014; EN ISO 20347:12	☐ Other:
Article:	Annex:	Clause: 5.4	

Key words: Upper Overlay

Question:

In the context of this question, an “overlay material” is a component of the footwear upper that is only present in areas where there is a second (underlying) material that fully complies with the requirements of EN ISO 20345:2011 Clause 5.4.

Question :

What testing should be carried out on an “overlay material”?

Solution:

Overlay materials **above** the height defined in EN ISO 20345:2011, Table 10 – As they are not an insert no testing is required.

Overlay materials **below** the height defined in EN ISO 20345:2011, Table 10, the following shall be tested :

- Upper, all requirements of EN 20345:2011/20346:2014/20347:2012 are applicable
- Upper plus overlay material Water Vapour Permeability and coefficient

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.050 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : INESCOP	☒ Vertical Group 24-03-2006 ☒ Horizontal Committee 15-09-2019 ☒ EU PPE Working Group 07-02-2020

Question related to ☐ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: EN ISO 20344:2011; EN ISO 20345:2011; EN ISO 20346:2014; EN ISO 20347:12 ☐ Other:

Article: Annex: Clause: 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 specify in clause 5.8.1 that outsoles with cleat height of less than 2, 5 mm are regarded as uncleated.

This could be not sufficient, because the height could be only 0,5 mm and become worn out very quickly. The slip resistance would change significantly.

Solution:

In this case it was agreed that it was particularly important for the user information to explain the possible effect of worn cleats on slip resistance and to include a warning for the user to examine the cleats before use.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.051 Version 1

Number of pages: 324	Approval stage :	Approved on :
Origin : BGBAU	☒ Vertical Group ☒ Horizontal Committee ☒ EU PPE Working Group	24-03-2006 15-09-2019 07-02-2020

Question related to ☒ PPE Regulation ☐ PPE Guidelines		☒ EN/prEN: EN ISO 20345:2011; EN ISO 20346:2014; EN ISO 20347:12	☐ Other:
Article:	Annex:	Clause: 8.1	

Key words: Instructions for use/Limitations of use

Question:

The instructions for use shall give information about all limitations of use (EN ISO 20345:2011 Clause 8.1 e). For the manufacturer it is very difficult to give all limitations of use. What is acceptable to N.B s?

For instance a “winter boot” certified to EN ISO 20345 with no testing for slip resistance on ice and no mention of this lack of testing in the User Information had been considered as unacceptable.

Solution:

The only solution provided was to make sure that all testing/protection is fully explained in the user instructions and then to include a statement. “This PPE has only been tested against the hazards identified by the product marking and explained in this leaflet – For other hazards, please contact the manufacturer”.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.052 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : CTC	☒ Vertical Group 16-03-2007 ☒ Horizontal Committee 15-09-2019 ☒ EU PPE Working Group 07-02-2020

Question related to ☐ PPE Regulation ☐ PPE Guidelines ☐ EN/prEN: ☐ 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 the sizes has a different outsole design.

He explains that the 3 shapes of sole have an equivalent philosophy. He wants to have one certificate for the product.

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 outsole design.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.054 Version 01

Number of pages: 324	Approval stage : Approved on :
Origin : SATRA	☒ Vertical Group ☒ Horizontal Committee 15-09-2019 ☒ EU PPE Working Group 07-02-2020

Question related to ☐ PPE Regulation ☐ PPE Guidelines ☐ EN/prEN: ☐ Other:

Article: Annex: Clause:

Key words:

Samples / specimen numbers

Question:

What should be done where the number of samples specified in EN ISO 20344:2011 is different from that specified in the test method.

e.g. Tear test on upper materials.

EN ISO 20344:2011. 1 sample from each of 3 sizes. Number of test pieces from 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 along & 5 across

Solution:

In cases of conflict, the requirements of EN ISO 20344: 2011 should be followed
(Where possible testing in both perpendicular directions)

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.055 Version 01

Number of pages: 324	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: ☐ Other:

Article: Annex: Clause:

Key words:

One model and different protecting components

Question:

We have sometimes allowed use of two different steel toecaps, very similar but different make. We have tested the model with both toecaps and the corrosion in both of them and that was all.

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 different properties / dimensions they will have to be treated as different models with different product names so that they can be differentiated in the market place.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/10.056 Version 01

Number of pages: 324	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: ☐ Other:

Article: Annex: Clause:

Key words:

Sock lining, insole abrasion

Question:

The abrasion resistance of the insole must be carried out according to EN ISO 20344: 2011 Clause 7.3. However, when the footwear has an inner sock lining covering also the insole that method seems to be meaningless. For textiles the Martindale method (Clause 6.12), used for linings and insocks, is potentially more suitable.

Solution:

When footwear has an inner sock lining it is enough to carry out the abrasion resistance of the lining according to EN ISO 20344: 2011 clause 6.12 and it is unnecessary to carry out the insole abrasion test according to Clause 7.3.

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 PPE-R/	Version	Reference	Keywords	Approved by Vertical Group 11	Approved by Horizontal Committee	Endorsed by PPE Working Group
11.004	02	EN 364:1992	Length of the test lanyard	21.04.2018	21.04.2018	22.04.2019
11.006	02		EU type examined equipment; minor variations, additional testing / verification	21.04.2018	21.04.2018	22.04.2019
11.007	02		EU type examined equipment; medium variations; verification; re-examination	21.04.2018	21.04.2018	22.04.2019
11.008	02		EU type examined equipment; essential variations; specific or partial tests	21.04.2018	21.04.2018	22.04.2019
11.009	02		EU type examined equipment; essential variations; EU type examination	21.04.2018	21.04.2018	22.04.2019
11.019	02	EN 364:1992	Energy absorber; chain test lanyard	21.04.2018	21.04.2018	22.04.2019
11.023	02	All EN/prEN	Static testing; stressing rate	21.04.2018	21.04.2018	22.04.2019
11.024	02	EN 364:1992	Dynamic force measurement; filter characteristic	21.04.2018	21.04.2018	22.04.2019
11.031	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	01	EN 795:2012 - type B	Vacuum anchor point	21.04.2018	21.04.2018	29.11.2019
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	01	All EN for PPE against fall from a height with load bearing textile element	Load bearing textile materials	21.04.2018	27.12.2018	29.11.2019
11.053	02	EN 361:2002	Full body harness: front loops	21.04.2018	21.04.2018	22.04.2019
11.057	02	EN 361:2002	Marking of fall arrest	21.04.2018	21.04.2018	22.04.2019

Number of RfU PPE-R/	Version	Reference	Keywords	Approved by Vertical Group 11	Approved by Horizontal Committee	Endorsed by PPE Working Group
			attachment points on EN 361:2002 harnesses			
11.060	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
11.068	02	EN 12278:2007	Pulley, sheaves, static strength test	21.04.2018	21.04.2018	22.04.2019
11.069	02	EN 361:2002, …	Synthetic fibre, breaking tenacity	21.04.2018	21.04.2018	22.04.2019
11.074	01	EN 354:2010, EN 355:2002	EN 354, EN 355, horizontal use; lanyards with energy absorber, edge test	21.04.2018	27.12.2018	29.11.2019
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	01	EN 353-2 :2002, EN 364:1992	Guided type fall arrester, dynamic performance, non integral energy absorber	21.04.2018	27.12.2018	29.11.2019
11.083	01	EN 355	Samples, test order	21.04.2018	27.12.2018	29.11.2019
11.085	01	EN 360:2002	Retractable fall arrester, fall factor, locking feature	21.06.2018	27.12.2018	29.11.2019
11.087	01	EN 360 :2002	Removable lanyard, non retractable termination lanyard	21.04.2018	27.12.2018	29.11.2019
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
11.095	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	01	EN 360 :2002	Retractable type fall arrester, swivel	21.04.2018	27.12.2018	29.11.2019
11.108	01	EN 795:2012, TS 16415:2013	Anchor device, anchor points	21.04.2018	27.12.2018	29.11.2019
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
11.110	01	EN 795:2012,	Anchor device, type C,	21.04.2018	27.12.2018	29.11.2019

Number of RfU PPE-R/	Version	Reference	Keywords	Approved by Vertical Group 11	Approved by Horizontal Committee	Endorsed by PPE Working Group
		TS 16415:2013	energy absorber			
11.111	01	EN 795:2012, TS 16415:2013	Anchor device, type C, type A, post, fixing element	21.04.2018	27.12.2018	29.11.2019
11.112	01	EN 795 :2012, TS 16415 :2013	Anchor device, type C, authorized people, lifeline, span	21.04.2018	27.12.2018	29.11.2019
11.113	01	EN 795:2012, TS 16415 :2013	Anchor device, dynamic test, permanent deformation	21.04.2018	27.12.2018	29.11.2019
11.114	01	EN 12275:2013, EN 365 :2004	Rigging plates, use for work, industry, mountaineering	21.04.2018	27.12.2018	29.11.2019
11.115	01		Clamps, rescue, evacuation, lifting, lowering	21.04.2018	27.12.2018	29.11.2019
11.116	01	EN 353-1:2014	Guided type fall arrester including rigid anchor line; angles of rigid anchor line	21.04.2018	27.12.2018	29.11.2019
11.117	01	EN 341 :2011	Descender devices for rescue; Function Test	21.04.2018	27.12.2018	29.11.2019
11.118	01	EN 341 :2011	Descender devices for rescue; textile rope lines	21.04.2018	27.12.2018	29.11.2019
11.119	01	EN 353-1: 2014+A1/2017	Guided type fall arrester including rigid anchor line; Number of users simultaneously	21.04.2018	27.12.2018	29.11.2019
11.121	01	EN 353-1:2014	Function test, arrest distance	21.04.2018	27.12.2018	29.11.2019
11.122	01	EN 360 :2002, EN 361 :2002	Retractable fall arrester, full body harness	21.04.2018	27.12.2018	29.11.2019
11.123	01	EN 360:2002, EN 341:2011, EN 1496:2017	Retractable fall arrester, descender device for rescue , rescue lifting device	21.04.2018	27.12.2018	29.11.2019
11.127	01	EN 361 :2002	Full body harness, ergonomic tests	21.04.2018	27.12.2018	29.11.2019
11.129	01	EN 353-1:2014 + A1:2017	Guided type fall arrester, closing mechanism	13.06.2019	15.09.2019	14.03.2022
11.130	01	EN 358:2018	Dynamic strength test, integrated lanyard	13.06.2019	15.09.2019	14.03.2022
11.131	01	EN 358:2018, EN 361:2002, EN 813:2008, EN 12277+A1: 2018	Fastening elements, harness, sit harness	13.06.2019	15.09.2019	14.03.2022
11.132	01	EN 361:2002	Maximum rated load, full body harness, instructions for use	13.06.2019	15.09.2019	14.03.2022
11.133	01	EN 892:2012 +A1:2016, EN 1891:1998	Dynamic mountaineering rope, low stretch kernmantel rope, construction	13.06.2019	15.09.2019	14.03.2022
11.135	01	EN 795:2012, EN 354 2010, EN 362/2004, EN 12275:2013	Swivel, use for work, industry, mountaineering	13.06.2019	15.09.2019	14.03.2022

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.004 Version 2

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 22.04.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN 364:1992	☐ Other:
Article:	Annex:	Clause: 5.1.2.1	

Key words:

Length of the test lanyard

Question:

What is the definition of the length of a test lanyard?

Solution:

Define the length as per figure 2 of EN 1497:2007.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.006 Version 2

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 22.04.2019

Question related to ☒ PPE Regulation ☐ EN/prEN: ☐ Other:

Article: Annex: Clause:

Key words:

EU type examined equipment; minor variations, additional testing / verification

Question:

What are minor variations within EU type examined equipment which do not require additional testing / verification?

Solution:

Examples of minor changes:

- Change in trade mark
- Change in reference
- Change in marking

Documents to be supplied:

- 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
- Sample or specimen

Conditions of validity:

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

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.007 Version 2

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 22.04.2019

Question related to ☒ PPE Regulation ☐ EN/prEN: ☐ Other:

Article: Annex: Clause:

Key words:

EU type examined equipment; medium variations; verification; re-examination

Question:

What are medium variations within EU type examined equipment which require verification by re-checking, visual inspection, re-examination (visual), review?

Solution:

Examples of changes to be verified by re-examination:

- Change in the colour of a strap or a sewing thread
- On a harness, an addition, a removal or a modification in an accessory-support device
- An addition, a subtraction or modification in a size (harness size or lanyard length)
- Change in length of a lanyard on a retractable type fall arrester

Documents to be supplied by the manufacturer:

- Formal letter from the manufacturer describing the change (s) in the equipment and confirming that there is no further modification
- Manufacturers technical specification relative to the change (drawings, parts list, letter of subcontractor, …)
- One specimen of the modified equipment for verification and storage
- One specimen of the original equipment for comparison with the modified equipment

Conditions of validity:

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

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.008 Version 2

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 22.04.2019

Question related to ☒ PPE Regulation ☐ EN/prEN: ☐ Other:

Article: Annex: Clause:

Key words:

EU type examined equipment; essential variations; specific or partial tests

Question:

What are essential variations within EU type examined equipment which require specific or partial test?

Solution:

Examples of essential changes requiring specific or partial tests:

- On a belt, a change in the type of carriage guard
- On a harness, a change in the metal buckle (material, dimension, treatment, ...)
- On a harness, a change in the dorsal plate
- On a connector, a change in the anti-corrosion treatment
- On a retractable type fall arrester, a change in the termination

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.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.009 Version 2

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 22.04.2019

Question related to ☒ PPE Regulation ☐ EN/prEN: ☐ Other:

Article: Annex: Clause:

Key words:

EU type examined equipment; essential variations; EU type examination

Question:

What are essential variations in EU type examined equipment which require a new EU type examination?

Solution:

Examples of essential changes requiring an EU type examination:

- On all PPE types, simultaneous or successive changes in components requiring processing as in sheet no. 11.008
- On a harness, a change in the arrangement of straps and/or seams
- On a harness, a fundamental change in strap (width, material, ...)
- On a harness, an addition, a removal or a shifting of an attachment point
- On a lanyard, a change in the termination (slice, ferrule, ...)
- On a retractable type fall arrester, a fundamental change in components
- On a guided type fall arrester on anchorage line, a change in the fall arrester (principle, configuration, material, ...) or in the anchorage line (diameter, material, ...)

Documents to be supplied by the manufacturer:

- According to the EU type examination

Conditions of validity:

- According to the EU type examination procedure
- The equipment is subjected of a specific storage and identification

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.019 Version 2

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 22.04.2019

Question related to	☐ PPE Regulation	☒ EN/prEN: EN 364:1992	☐ Other:
Article:	Annex:	Clause:	

Key words:

Energy absorber; chain test lanyard

Question:

How can the influence of the chain test lanyard on the peak force in the dynamic performance test of an energy absorber be avoided?

Solution:

The influence of the chain test lanyard on the peak force in the dynamic performance test of an energy absorber can be avoided, if the load cell is directly connected to the energy absorber and not to the chain test lanyard.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.023 Version 2

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 22.04.2019

Question related to ☐ PPE Regulation ☒ EN/prEN: All ☐ Other:

Article: Annex: Clause:

Key words:

Static testing; stressing rate

Question:

How can the stressing rate during static testing be adjusted to avoid dynamic effect and overshooting of force control equipment?

Solution:

The stressing rate during static testing shall not be constant or at a certain strain rate. The required static force shall be reached within a acceptable time to avoid dynamic effects and overshooting of force control equipment.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.024 Version 2

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 22.04.2019

Question related to ☐ PPE Regulation ☒ 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 measurements?

Solution:

The filter characteristics used for dynamic force measurements during testing of PPE against falls from a height are as follows:

1. Type: Low-Pass
2. Characteristic: Butterworth
3. Cutoff-Frequency: 60 Hz
4. Tolerance level at 0 Hz : +0,1/-0,2 dB
5. Tolerance level at 60 Hz : (-3dB) +0,1/-0,3 dB
6. Slope: 24 dB/Octave
7. Tolerance level of the slope : +5/-5 dB
8. Attenuation band: -50 dB

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.031 Version 1

Number of pages: 324	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

Question related to ☐ PPE Regulation ☐ EN/prEN: ☐ Other:

Article: Annex: Clause:

Key words:

Canyoning; caving

Question:

How to perform testing of harnesses used in "canyoning" and "caving" sport?

Solution:

Harnesses used in above described sports have to be tested according to EN 12277 "Mountaineering Equipment - Harnesses"

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	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 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 22.04.2019

Question related to	☒ PPE Regulation	☒ EN/prEN: 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 protective work 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

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.037 Version 2

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 22.04.2019

Question related to	☒ PPE Regulation	☒ EN/prEN: EN1891:1998, EN 364:1992	☐ Other:
Article:	Annex:	Clause: 5.9.2	

Key words:

Low stretch kernmantel rope - drop machine

Question:

Dynamic performance and number of drops: Which drop machine has to be used (free fall or guided)?

Solution:

VG11 recommends to use the free fall machine.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.040 Version 1

Number of pages: 324	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

Question related to ☒ PPE Regulation ☐ EN/prEN: ☐ Other:

Article: Annex: Clause:

Key words:

Date of manufacture, marking, ageing

Question:

1. Should PPE against fall from a height subject to ageing be marked with the date of manufacture even if the particular standard does not require this?
2. What shall be the format of the date?
3. What maximum lifespan PPE against fall from a height made from non metallic components can be claimed in instructions for use?

Solution:

1. YES if obsolescence date is not marked. Note: all PPE against fall from a height subject to ageing shall be marked with the date of manufacture and/or obsolescence date.
2. The date's marking should at least include the year and also the day or week or month or the quarter. There is no required format for the date but it shall be explained in instruction for use.
3. For PPE against fall from a height made from non-metallic components significantly affected by ageing the manufacturer shall indicate a maximum useful life, depending upon conditions of storage, use, etc

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.041 Version 1

Number of pages: 324	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

Question related to ☒ PPE Regulation ☒ EN/prEN: EN 795:2012 - type B ☐ Other:

Article: Annex: Clause:

Key words:

Vacuum anchor point

Question:

How to assess anchor device attached to a structure by vacuum pressure?

Solution:

Anchor devices attached to structure by vacuum pressure should be tested to EN 795 as type B device

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.042 Version 1

Number of pages: 324	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

Question related to ☒ PPE Regulation ☒ EN/prEN: EN 353-2:2002 ☐ Other:

Article: Annex: Clause:

Key words:

Guided Type Fall Arrester - Incorrect attachment and use

Question:

1) Guided type fall arresters can be provided with a locking device or can travel freely along the anchor line in one direction only (normally upwards). The release function/button of the fall arrester must be operated by hand. This may prevent the fall arrest function from working – What kind of warning shall be included in the instructions for use of such fall arresters?
2) There are safety concerns associated with the use of guided type fall arresters for work positioning purposes – What kind of warning should be included within the manufacturer's user instructions?
3) There are safety concerns associated with the use of incorrect/unsuitable harness attachment points and connections when used in conjunction with guided type fall arresters – What kind of warning should be included within the manufacturer's user instructions?
4) How to test GTFA having more than 1 method of operation or having a natural locking position?

Solution:

1) The instructions for use shall include a warning that the release function/button must only be operated when the user is in no danger of falling (i.e. they have a safe hand).
2) The instructions for use shall confirm whether or not the system can be used for work positioning purposes.
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 locking position or under each method of operation shall also be dynamically tested according to articles 4.5/5.3 of EN 353-2:2002

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.043 Version 2

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 22.04.2019

Question related to	☒ PPE Regulation	☒ EN/prEN: EN 361:2002, EN 358:1999	☐ Other:
Article:	Annex:	Clause:	

Key words:

Back support; full body harness; waist belt; work positioning elements

Question:

Must a full body harness including work positioning elements have a waist belt or back support?

Solution:

There is no need of a waist belt or back support if the force is applied to the user's body in a way that provides the similar comfort.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.049 Version 2

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 22.04.2019

Question related to ☒ PPE Regulation ☒ EN/prEN: EN 1891:1998 ☐ Other:

Article: Annex: Clause:

Key words:

Low stretch kernmantel ropes; diameter

Question:

Shall the requirement of 8,5 mm for the diameter of low stretch kernmantel ropes be strictly fulfilled?

Solution:

No, the minimum diameter shall be 8,5 mm or of a value giving the equivalent safety.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.050 Version 2

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 22.04.2019

Question related to ☒ PPE Regulation ☒ EN/prEN: EN 353-2:2002 ☐ Other:

Article: Annex: Clause: 4.4.2

Key words:

Guided type fall arrester including a flexible anchor line; static strength

Question:

How should the static test be carried out under EN353-2 ?

1/ Should the static test include the whole system (e.g flexible anchor line specified by the manufacturer and the fall arrester)?

2/ Should the device be loaded through the fall arrester attachment eye/lanyard/connector?

3/ What is the static strength a guided type fall arrester including a flexible anchor line shall resist, if it is provided with a connector only, no lanyard?

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.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.051 Version 1

Number of pages: 324	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

Question related to	☒ PPE Regulation	☒ EN/prEN: all EN for PPE against fall from a height with load bearing textile element	☐ Other:
Article:	Annex:	Clause:	

Key words:

Load bearing textile materials

Question:

Which kinds of load bearing textile materials are acceptable for use in personal protective equipment against falls from a height and which are not?

Solution:

Unless documented justification can be provided for specific application, the following recommendation apply:

1. polyamide 100% - **acceptable**
2. polyester 100% - **acceptable**
3. mixture of polyamide and polyester fibres - **acceptable**
4. aramid 100% - **not acceptable**
5. polyethylene made of mono filament fibres- **not acceptable**
6. polyethylene made of multifilament fibres of high tenacity – **acceptable** but the instructions for use shall warn about the low melting point (140°C)
7. polypropylene – **acceptable** (providing it has suitable UV resistance assessed in accordance with EN 1263:2002)
8. aramid coated with polyamide or polyester or Polypropylene (with UV resistance, see above) - **acceptable** if additional indications are included in the instructions for use (inspection, ageing, wear etc.)
9. polypropylene coated with polyamide or polyester - **acceptable** if additional indications are included in the instructions for use (inspection, ageing, wear etc.)
10. polyamide or polyester with elastic yarn - **acceptable**, but shall be checked by carrying following tests: static resistance, dynamic and suspension

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.053 Version 2

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 22.04.2019

Question related to ☒ PPE Regulation ☒ EN/prEN: EN 361:2002 ☐ Other:

Article: Annex: Clause:

Key words:

Full body harness: front loops

Question:

Who is responsible for using the right connector to form the front attachment point of a full body harness which comprises two attachment elements e. g. webbing loops or D rings?

Solution:

The manufacturer is responsible to specify exactly the type of connector e. g. type / model which should be detailed within the PPE user instructions.

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

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.057 Version 2

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 22.04.2019

Question related to ☒ PPE Regulation ☒ EN/prEN: EN 361:2002 ☐ Other:

Article: Annex: Clause:

Key words:

Marking of fall arrest attachment points on EN 361:2002 harnesses

Question:

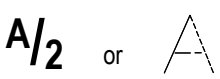
How could the 'A' marking appear on EN 361:2002 fall arrest attachment points?

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:



	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.060 Version 1

Number of pages: 4	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

Question related to ☒ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: EN 360:2002 ☐ Other:

Article: Annex: Clause:

Key words:

Horizontal use; retractable type fall arrester

Question:

What tests are necessary for retractable type fall arresters intended for horizontal use over an edge?

Solution:

1. Preliminary note:
The principles for testing relate to the optional test of retractable type fall arresters. It is presumed that the anchor point of the retractable type fall arrester is not situated lower than the standing user.

2. General requirements:
The retractable type fall arrester shall comply with the requirements in accordance with EN 360:2002.

3. Additional requirements:

3.1 Locking in a horizontal arrangement
3.2 Locking in a horizontal arrangement following optional conditioning
3.3 Dynamic performance in a horizontal arrangement when loaded over an edge with an edge radius of 0.5 mm
3.4 Dynamic strength in a horizontal arrangement when loaded over an edge with an edge radius of 0.5 mm
3.5 Static strength in a horizontal arrangement when loaded over an edge with an edge radius of 0.5 mm

4. Additional tests to be carried out:

4.1 Edge to be used for testing:

For the dynamic tests, **an edged (type A)** drawn square steel bar in accordance with EN 10278:1999 (material C 45+C or E 335 GC (ST60) pursuant to EN 10025) shall be used. The dimensions of the steel bar shall be at least 10 x ≤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 µm.

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:

a) 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.

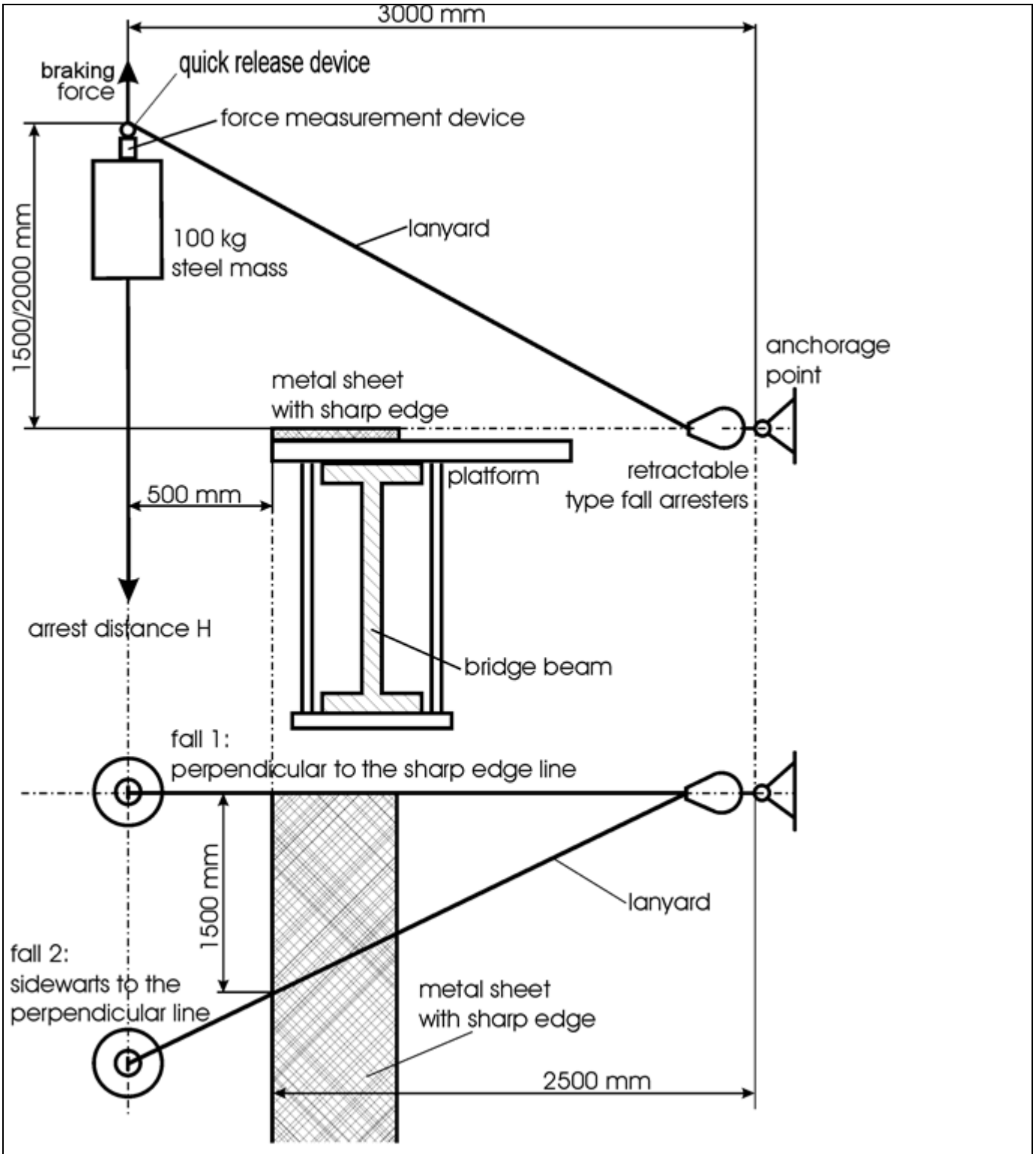


Figure 1: Dynamic performance test for retractable type fall arrester in horizontal use

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.062 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 21.06.2018 ☒ Horizontal Committee 27.12.2018 ☒ EU PPE Working Group 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 standard with standard load value and with value manufacturer gives. Values of standard have to be met.

Note: in absence of specified claim for user weight, test shall be carried out with the 100kg mass

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.063 Version 1

Number of pages: 324	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

Question related to ☒ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: 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 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

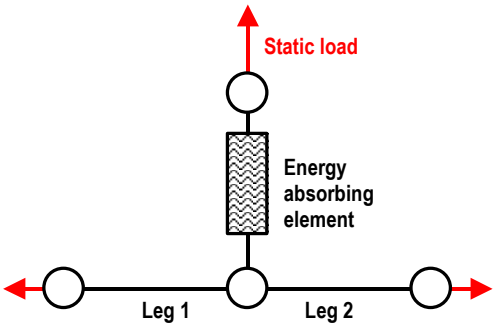


Figure: 3-point test with legs at start in line, perpendicular energy absorbing element

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

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.064 Version 1

Number of pages: 324	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

Question related to ☐ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: EN 353-1:2014, EN 353-2:2002 ☐ Other:

Article: Annex: Clause:

Key words:

Different fall arrestors for fall arrest systems

Question:

Is it possible to certify a vertical fall arrest system where the mobile anchor device (i.e. fall arrester) is supplied to the end user by a different company to the one that originally supplied and installed the cable and anchor brackets?

Solution:

Certification can only be based on the combinations of equipment that have been tested to and passed the requirements of the standard. The end user must take responsibility to ensure that only certified combinations are used.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.068 Version 2

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 22.04.2019

Question related to	☒ PPE Regulation	☒ EN/prEN: EN 12278:2007	☐ Other:
Article:	Annex:	Clause: 4.2	

Key words:

Pulley, sheaves, static strength test

Question:

How to test pulleys with more than one sheave when they are not intended for individual use?

Solution:

When not intended to be used individually they shall be tested together as per in use.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.069 Version 2

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 22.04.2019

Question related to ☒ PPE Regulation ☒ EN/prEN: 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 manufacturer's technical file declaring the minimum breaking tenacity of synthetic fibres as 0.6 N/tex.

Note: this requirement is not applicable to accessory straps.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.074 Version 1

Number of pages: 3	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

Question related to	☒ PPE Regulation	☒ EN/prEN: EN 354:2010, EN 355:2002	☐ Other:
Article:	Annex:	Clause:	

Key words:

EN 354, EN 355, horizontal use; lanyards with energy absorber, edge test

Question:

What tests are necessary for lanyards with energy absorber intended for horizontal use over an edge?

Solution:

Preliminary remarks:

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

General requirements:

EN 354:2010
EN 355:2002

Additional requirements:

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

Additional test to be performed:

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

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

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.

  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 lanyard/energy absorber may not be below the user’s stand level (e.g. platform, flat roof.

  7. The deflection at the edge (measured between the two legs of the fastener / mobile guide) must be at least 90°.

  8. The necessary free space beneath the edge.

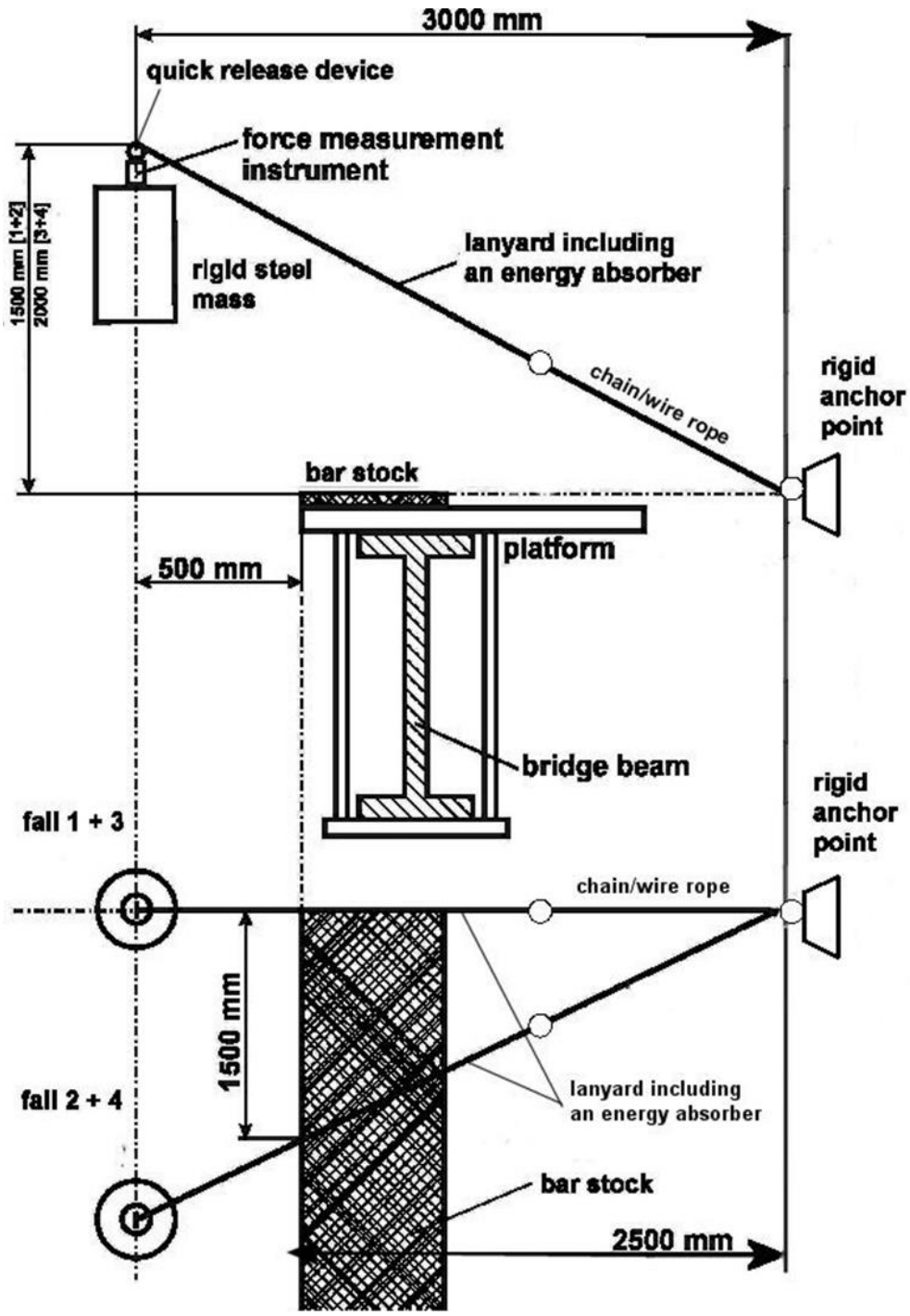
  9. The lanyard must always be used in such a way that there is no slack rope. If the lanyard is equipped with a length adjustment device, this may only be used if the user is not moving in the direction of the fall edge.

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 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.

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.



	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.075 Version 1

Number of pages: 3	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

Question related to ☒ PPE Regulation ☒ EN/prEN: EN 353-2:2002 ☐ Other:

Article: Annex: Clause:

Key words:

EN 353-2, horizontal use; guided type fall arrester including flexible anchor line , edge test

Question:

What tests are necessary for guided type fall arrester including flexible anchor line intended for horizontal use 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:

3. Dynamic performance with horizontal arrangement and stress over an edge
4. Dynamic and static strength with horizontal arrangement and stress over an edge

Additional test to be performed:

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

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 not 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:

  14. 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.

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

  16. The deflection at the edge (measured between the two legs of the fastener / flexible anchorage line) must be at least 90°.

  17. The necessary free space beneath the edge

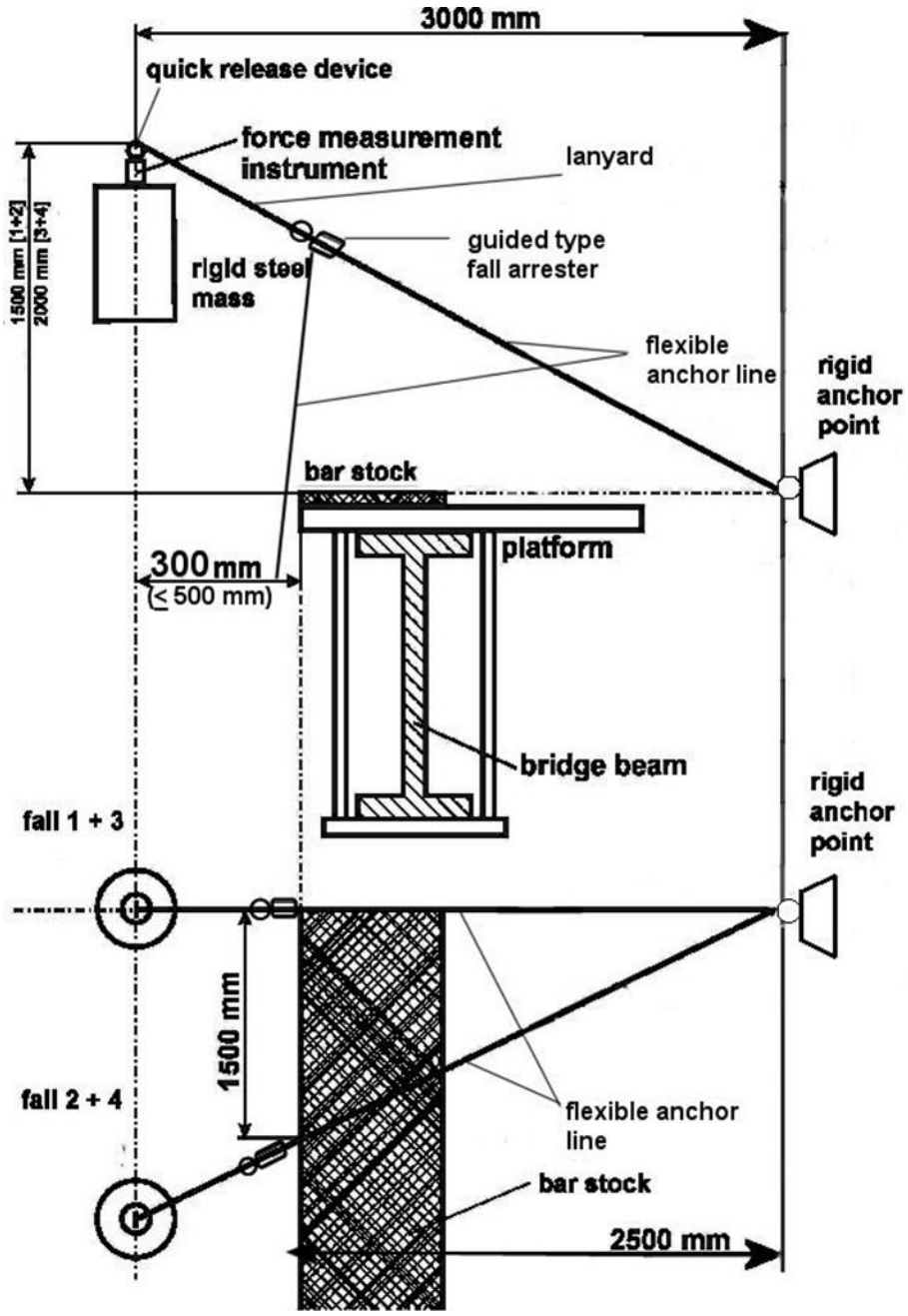
18. The partial system must always be used in such a way that there is no slack rope. The length may only be adjusted if the user is not moving in the direction of the fall edge

19. 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.

20. 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.

21. 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.

22. Special rescue measures are to be stipulated and trained in the event of a fall over an edge.



	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.081 Version 1

Number of pages: 324	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

Question related to ☒ PPE Regulation ☐ PPE Guidelines		☒ EN/prEN: EN 353-2 :2002, EN 364:1992	☐ Other:
Article:	Annex:	Clause:	

Key words:

Guided type fall arrester, dynamic performance, non integral energy absorber

Question:

How to assess the dynamic performance of a EN 353-2 device that includes a non integral energy absorber?

Solution:

EN 353-2 device shall be tested in accordance with EN 364 5.5.2 or 5.8.2, without any energy absorber and with each energy absorber that can be used in the flexible anchor line and/or connected to the guided type fall arrester, as specified by the manufacturer in its instruction for use.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.083 Version 1

Number of pages: 324	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

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 on 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 performance on the same sample

A new sample shall be used for preloading test

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.085 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 21.06.2018 ☒ Horizontal Committee 27.12.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☒ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: EN 360:2002 ☐ Other:

Article: Annex: Clause:

Key words:

Retractable fall arrester, fall factor, locking feature

Question:

How to assess retractable fall arresters (EN 360 type) claiming the possibility to go above the device and/or including a retraction locking feature?

Solution:

Retractable fall arresters claiming the possibility to go above the device and/or including a retraction locking feature shall comply EN 360 and following additional requirement:

1- Dynamic performance test (with locked retraction feature if applicable), the maximum extracted length and a fall factor 2
Requirement: F<6kN and H< 5,75m

2- Dynamic performance test (with locked retraction feature if applicable), half the maximum extracted length and fall factor 2 (to test the locking mechanism)
Requirement: F<6kN and H<3,75m

3- Static strength test on the lanyard webbing only (a test specimen can be submitted by the applicant) - 22kN 3 minutes

4- Instructions for use and marking according (clearance below the user, ...)

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.087 Version 1

Number of pages: 324	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

Question related to ☒ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: 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 arrester end termination?

2/ What is the maximum permissible permanently non retractable termination length of a retractable fall arrester?

Solution:

1/ No, the retractable fall arrester shall be made of one continuous piece of retractable lanyard

2/ The permanently non retractable termination (including e.g. energy absorber, handling, loop, integral connector,..) shall not exceed 600 mm.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.093 Version 1

Number of pages: 324	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

Question related to ☒ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: EN 341 :2011 ☐ Other:

Article: Annex: Clause: art 4.4.1/4.4.2

Key words:

Descender device, temperature test

Question:

How to understand articles 4.4.1 and 4.4.2 of EN 341:2011 as there are some unclear requirements?

Solution:

4.4 Function

4.4.1 Classes A, B and C

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

When tested in accordance with 5.4.1, 5.4.2 and 5.4.3:

- it shall be possible to maintain a continuous descent velocity between 0,5 m/s and 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 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:

- 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.
- 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.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.094 Version 2

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 21.04.2018 ☒ Horizontal Committee 21.04.2018 ☒ EU PPE Working Group 22.04.2019

Question related to	☒ PPE Regulation	☒ EN/prEN: EN 358:1999, EN 354:2010	☐ Other:
Article:	Annex:	Clause:	

Key words:

Pole choker, work positioning lanyard

Question:

How should pole chokers (*) be assessed?

Solution:

Pole chokers have to be assessed as work positioning lanyard according to EN 358 or EN 354.

Dynamic resistance tests shall be carried out using a representative pole (at least minimum and maximum diameter)

Instructions for use shall require that the user needs a back-up system when using the pole choker devices

(*) Pole choker: double adjustable webbing lanyard designed to be used for climbing on wooden poles

Example of Pole Choker:

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.095 Version 1

Number of pages: 324	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

Question related to ☒ PPE Regulation ☐ PPE Guidelines		☒ EN/prEN: EN 795:2012, TS 16415:2013, EN 892:2012	☐ Other:
Article:	Annex:	Clause: Art. 5.2.1. of EN 795 and Art. 5.1 of TS 16415	

Key words:

Anchor device, free fall distance, test lanyard, rigid test mass

Question:

What kind of test lanyard or test mass can be used to test anchor devices?

Solution:

The test lanyard shall conform to following:

1. Made of a single mountaineering rope conform to EN 892 with an impact force of (9 ± 1,5) kN in the first dynamic test
2. Length of minimum 1m and maximum 2m
3. Stitched or made of hand knots (e.g. bowline)

The test mass shall be of minimum 100kg and maximum 200kg

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.096 Version 1

Number of pages: 324	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

Question related to ☒ PPE Regulation ☐ PPE Guidelines		☒ EN/prEN: EN 795:2012, EN 353-2 :2002, EN 360 :2002	☐ Other:
Article:	Annex:	Clause: Art. 7 – i) – iii)	

Key words:

Anchor device, type C, instructions for use, EN 360, EN 353-2

Question:

What shall the notified body require if the manufacturer claims on its instructions for use that its type C anchor device can be combined with retractable fall arrester (EN 360) or guided type fall arrester including a flexible anchor line (EN 353-2)?

Solution:

In application of article 7 point i) – iii), the manufacturer shall show to the notified body evidences of risk analysis (e.g. tests) combining the type C anchor device and each claimed models of EN 360/ 353-2 PPE.

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 device.

2- Include specific warning about necessary clearance below the user when EN 360 and/or EN 353-2 PPE can be used on the type C anchor device.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.098 Version 1

Number of pages: 324	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

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,..)?

Solution:

No, at least because in some cases the distance between the structure and the user is important and cannot be reduced, there is no limitation of the length of anchor devices type B made of lanyard.

But as these devices could be misused (e.g. climbing above the low attachment) they shall conform to following complementary requirements:

1- Marking: the end attachment (or both ends if both can be used as tail) shall show a special warning to forbid to climb above the attachment (to avoid free fall) and to require to stay below the attachment (to avoid pendulum effect). Drawings can be used

2- Instructions for use: shall include a warning about the risk of failure of the product in case of climbing above the attachment point and to require to stay below the attachment point.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.103 Version 1

Number of pages: 324	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

Question related to ☒ PPE Regulation ☐ PPE Guidelines		☒ EN/prEN: EN 795:2012, TS 16415:2013	☐ Other:
Article:	Annex:	Clause:	

Key words:

Anchor device, static strength test, material, durability

Question:

Following EN 795:2012 and TS 16415:2013 (articles 5) static strength test methods, which static load shall be applied for anchor devices with any load bearing element or component made from plastics?

Note: for instance, extract of EN 795:2012 article 5.3.4: *apply a static load of (12 +1/0) kN for(3 +0,25/0) min; or, where any load bearing element or component is made from non-metallic material(s) and where evidence of durability is not provided by the manufacturer, (18 +1/0) kN for (3 +0,25/0) min*

Solution:

For plastics, as evidence of durability is usually not available, the static strength test should be carried out at (18 +1/0) kN for (3 +0,25/0) min

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.104 Version 1

Number of pages: 3	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

Question related to ☒ PPE Regulation ☐ PPE Guidelines		☒ EN/prEN: EN 362:2005, EN 12278:2007, EN 795:2012, EN 12275:2013, prEN 15567-1	☐ Other:
Article:	Annex:	Clause:	

Key words:

Ropes courses, wire rope, Tyrolean, pulley, shuttle

Question:

How to assess shuttles that are designed for use on wire rope for Rope Courses?

Solution:

Note 1: shuttles can be used to protect against fall from a height when used on horizontal wire rope or can be used for Tyrolean activity
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 change-over 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 ± 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, …):

1. 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

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.105 Version 1

Number of pages: 324	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

Question related to ☒ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: EN 341 :2011 ☐ Other:

Article: Annex: Clause: article 4.5 a)

Key words:

Descender device, classes

Question:

What are the requirements for the descent energy test on classes A, B and C?

Solution:

For class A: the descender device shall resist a descent energy test of 7,5 10^6J

For class B: the descender device shall resist a descent energy test of 1,5 10^6J

For class C: the descender device shall resist a descent energy test of 0,5 10^6J

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.106 Version 1

Number of pages: 324	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

Question related to ☒ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: EN 360 :2002 ☐ Other:

Article: Annex: Clause:

Key words:

Retractable type fall arrester, swivel

Question:

Shall retractable type fall arrester include a swivel function and if so where shall it be located?

Solution:

The retractable type fall arrester shall include a permanent integrated swivelling element at the end of the lanyard to avoid twisting of the lanyard element

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.108 Version 1

Number of pages: 324	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

Question related to ☒ PPE Regulation ☐ PPE Guidelines		☒ EN/prEN: EN 795:2012, TS 16415:2013	☐ Other:
Article:	Annex:	Clause:	

Key words:

Anchor device, anchor points

Question:

When testing EN 795:2012 and TS 16415:2013 no text describes how to do carry out testing (dynamic and static) when the device is made of one piece but with different attachment points. For instance if the anchor device has 3 rings, how should the testing be conducted?

Solution:

For an anchor device with 1 anchor point :

Carry out the test according to EN 795 using a 100 kg test mass

For an anchor device with two (2) anchor points:

Carry out the dynamic test according to EN 795 using a 100 kg test mass connected to the likely weakest point if different

Carry out the dynamic test according to TS 16415 by connecting the anchor points together using a suitable connecting element (*) and test together using a 200 kg test mass.

Carry out the static test according to EN 795. The static strength is applied to the strength to the likely weakest point if different

Carry out the static test according to TS 16415 by connecting the anchor points together using a suitable connector (*) and test together.

(*): example of suitable connecting element: a wire rope lanyard (each end of which is connected to one of the 2 anchor points), and supporting a pulley through which a load is applied, ensuring an equal load is applied to each anchor point.

For an anchor device with three (3) or more anchor points:

As for 2 anchor points but for TS 16415 test the third (3rd) and any additional anchor points test each individually.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.109 Version 1

Number of pages: 324	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

Question related to ☒ PPE Regulation ☐ PPE Guidelines		☒ EN/prEN: EN 795:2012, TS 16415:2013	☐ 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 requirements when low values are measured?

Solution:

Following requirements apply for force and deflection:

1- Force measurement

If the load at the extremity is less than 3 kN then the requirement of +/- 20% does not apply

2- Deflection measurement

If the deflection on the span is less than 250 mm then the requirement of +/- 20% does not apply

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.110 Version 1

Number of pages: 324	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

Question related to ☒ PPE Regulation ☐ PPE Guidelines		☒ EN/prEN: EN795:2012, TS16415:2013	☐ Other:
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 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 incorporates energy absorbing elements at only one end: “locate the mobile anchor point at the end of the longest span that meets with the shortest span” but requirements of article 4.4.3.3 (calculation for deflection and loading) don’t apply.

Test2: as described in EN 795 art. 5.5.3.2.2.1 for other type C: “position the mobile anchor point at the centre of the longest span”. Requirements of article 4.4.3.3 apply.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.111 Version 1

Number of pages: 324	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

Question related to ☒ PPE Regulation ☐ PPE Guidelines		☒ EN/prEN: EN 795:2012, TS 16415:2013	☐ Other:
Article:	Annex:	Clause:	

Key words:

Anchor device, type C, type A, post, fixing element

Question:

When they can be installed together, where is the limit between type C, type A and fixing element?

1- When testing a Type C, shall, for instance, post or fixing element be included?
And if so, do Type C have to be tested with all types of post/fixing element?

2- If the post/fixing element is removable from the type C shall it be tested as Type A?

Solution:

Two dynamic tests have to be carried out:

1- Yes, all extreme combinations of type C + post/fixing element that are designed to be installed with the type C have to be tested.

(example of combination that don't need to be tested: for a same design/material/…, only shortest and longest posts shall be tested with type C).

The specification of all post/fixing elements, including design, size and reference, shall be included in the information supplied by the manufacturer and listed in the report

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.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.112 Version 1

Number of pages: 324	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

Question related to ☒ PPE Regulation ☐ PPE Guidelines		☒ EN/prEN: EN 795 :2012, TS 16415 :2013	☐ Other:
Article:	Annex:	Clause:	

Key words:

Anchor device, type C, authorized people, lifeline, span

Question:

Can the number of authorized people on the Type C lifeline be different from the number on one span?

Solution:

No, they have to be the same. One span shall be tested with the maximum authorized number of users on the lifeline

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.113 Version 1

Number of pages: 324	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

Question related to ☒ PPE Regulation ☐ PPE Guidelines		☒ EN/prEN: EN 795:2012, TS 16415 :2013	☐ Other:
Article:	Annex:	Clause:	

Key words:

Anchor device, dynamic test, permanent deformation

Question:

Note: for dynamic test on anchor devices, the test mass shall be first lowered until the test lanyard holds it, just for having a datum for the height of fall while it can lead to permanent deformation in the anchor device.

How to avoid unexpected permanent deformation that could occur on deformable components (e.g. energy absorber) before releasing the mass?

Solution:

Test shall not be carried out on an anchor device that has been permanently deformed before the test by the test mass suspension (100kg or 200kg as in TS16415).

Components that could deform can be locked or replaced by a rigid element.

Note: to avoid insufficient preloading of the test lanyard, stitched test lanyard can be used (see VG11 Recommendation for use 11.095)

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.114 Version 1

Number of pages: 324	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

Question related to ☒ PPE Regulation ☐ PPE Guidelines		☒ EN/prEN: EN 12275:2013, EN 365 :2004	☐ Other:
Article:	Annex:	Clause:	

Key words:

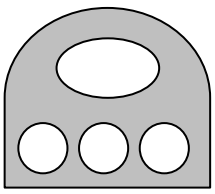
Rigging plates, use for work, industry, mountaineering

Question:

How to assess rigging plates used by a person for fall protection for industry or mountaineering?

Solution:

Preliminary note: rigging plates are metallic plates with at least three holes.
Example:



Applicable standard:
These devices are not anchor devices EN 795:2012 type A (not intended to be attached directly to the structure) and are not EN 795:2012 type B (not to be attached directly to the structure without the need for a structural anchor).
As not flexible they are not lanyard EN 354:2010, as not openable they are not EN 362:2004 or EN 12275:2013.

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

1- Static test: following applicable requirements of EN 12275:2013, to the strength value marked on the rigging plate in each direction of use claimed in the instructions of use but not less than 20kN. (it is allowed to use one sample per direction). The device shall withstand at least the value claimed by the manufacturer

2- Corrosion test: following EN 354:2010 (articles 4.7 and 5.9)

3- Marking: applicable requirements of EN 12275:2013 and EN 365:2004, with strength value in 'kN' claimed by the manufacturer (whole number) but no reference to a EN standard

4- Instructions for use: applicable requirements of EN 12275:2013 and EN 365:2004 : how to use it, directions of use, type of connectors to use, breaking strength in 'kN',… but no reference to a EN standard

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.115 Version 1

Number of pages: 2	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

Question related to ☒ PPE Regulation ☐ PPE Guidelines ☐ EN/prEN: ☐ Other:

Article: Annex: Clause:

Key words:

Clamps, rescue, evacuation, lifting, lowering

Question:

How shall clamps that are claimed to be used in conjunction with devices for the rescue or evacuation lifting and lowering process be tested and evaluated?

Solution:

Requirements:

1. **General:**
   The function test, static strength test and dynamic test has to be carried out with any type of construction of the line (e. g. integrated lanyard of an energy absorber, lanyard of a retractable type fall arrester, flexible anchor line) as specified by the manufacturer

2. **Construction:**
   Construction of the rescue / evacuation clamp has to be conform with clauses 4.1.1, 4.1.2, 4.1.4 and 4.1.5 of the EN 567:2013

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

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

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

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

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

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

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

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

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

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.116 Version 1

Number of pages: 324	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

Question related to ☒ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: EN 353-1:2014 ☐ Other:

Article: Annex: Clause:

Key words:

Guided type fall arrester including rigid anchor line; angles of rigid anchor line

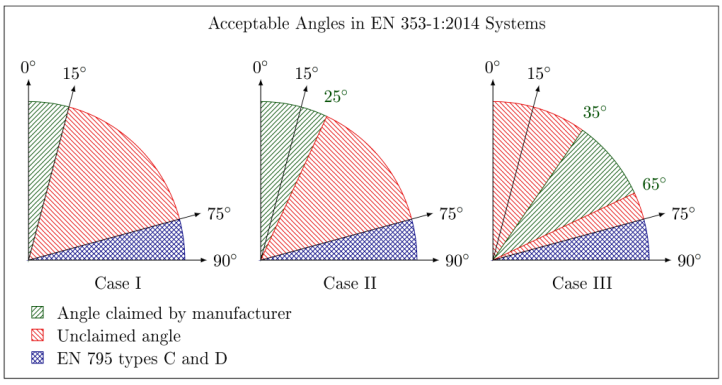
Question:

How to assess devices when the manufacturer claims the use of its guided type fall arrester including rigid anchor line with higher angles than the standard values (+15° in forward and sideward direction) given in EN 353-1:2014?

Solution:

- Case 1: the manufacturer claims a use in the range of EN 353-1:2014: all tests according to EN 353-1:2014
- Case 2: the manufacturer claims a use beyond the range of EN 353-1:2014 (forward, sideway and combined if claimed): all tests according to EN 353-1:2014 plus additional tests at maximum angles beyond EN 353-1:2014, 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: relevant tests from EN 353-1:2014 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
- 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 at horizontal. If not (e.g. presence of corners, maximum horizontal length vs vertical length,...) EN 795 shall apply as test procedure.
- Backward angle shall be tested in the same way (tests, risk analysis, practical tests)

Examples :



	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.117 Version 1

Number of pages: 324	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

Question related to ☒ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: EN 341 :2011 ☐ Other:

Article: Annex: Clause:

Key words:

Descender devices for rescue; Function Test

Question:

What is the sense of the test “wet and cold condition” (art.5.4.3) by immerse the device in water?

Preliminary note
By immersing automatic descender devices in water (instead of spraying) these devices will normally fail this test

Solution:
For automatic descender devices the wet and cold condition test can be limited to cold condition.
That is, for automatic descender devices do not implement the first two sentences of EN 341:2011 art. 5.4.3

Exclude in the instructions for use the use in wet and cold conditions.
EN 341 shall not marked on the product nor in the instructions, unless the device satisfies EN 341:2011 art. 5.4.3.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.118 Version 1

Number of pages: 324	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

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 device (type 1) be acceptable even if it does not conform to the required diameter of EN 1891:1998 type A?

Solution:

Yes, the descender device can be approved as PPE but :

1- A risk analysis shall be carried out for the diameter effect.

2- The descender device (including the line) shall conform to all other requirement of EN 341:2011.

3- EN 341 cannot be marked on the PPE nor on the instructions

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.119 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 21.06.2018 ☒ Horizontal Committee 27.12.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☒ PPE Regulation ☐ PPE Guidelines		☒ EN/prEN: EN 353-1: 2014+A1/2017	☐ Other:
Article:	Annex:	Clause:	

Key words:

Guided type fall arrester including rigid anchor line; Number of users simultaneously

Question:

How to assess guided type fall arresters including a rigid anchor line (made of wire rope or of rail), when the manufacturer claims the use by more than one person simultaneously on the rigid anchor line?

Solution: *Note: GTFA = guided 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 wire rope and rail

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
    - for anchor lines made from wire rope: 3m
    - for anchor lines made from rail: 3m or two times the maximum span according to the greater length

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

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.121 Version 1

Number of pages: 324	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

Question related to ☒ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: 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 one of them?

Solution:

H_{LD} and H_{AD} requirement shall be met both

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.122 Version 1

Number of pages: 324	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 21.06.2018 ☒ Horizontal Committee 27.12.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☒ PPE Regulation ☐ PPE Guidelines		☒ EN/prEN: EN 360 :2002, EN 361 :2002	☐ Other:
Article:	Annex:	Clause:	

Key words:

Retractable fall arrester, full body harness

Question:

How to assess a retractable type fall arrester which is attached to a full body harness by a specific adapter which is not connected to the typical attachment point (e.g. a D-ring)?

Solution:

Each claimed compatible full body harness should be tested.

Test shall be carried out according to EN 360 using full body harness and torso dummy instead of rigid mass

Instruction for use should include compatible products and add sufficient information on how to connect the device.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.123 Version 1

Number of pages: 324	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

Question related to ☒ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: EN 360:2002, EN 341:2011, EN 1496:2017 ☐ Other:

Article: Annex: Clause:

Key words:

Retractable fall arrester, descender device for rescue , rescue lifting device

Question:

How to test EN 360 including descending EN 341 and/or lifting EN 1496 functions?

Solution:

Testing should be based on relevant requirement from EN 360 and EN 341 and/or EN 1496

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.127 Version 1

Number of pages: 1	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 21.06.2018 ☒ Horizontal Committee 27.12.2018 ☒ EU PPE Working Group 29.11.2019

Question related to ☒ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: 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) remain correctly adjusted.

2- Test Methodology

The test subjects shall be two persons of different height, within the range160 cm to 190 cm, and of different weight, within the range60 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 tests shall be carried out by each of the test persons for each attachment point of the FBH designated by the manufacturer.

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

Suspend the test subject clear of the ground by means of a suitable lifting/lowering device connected to the attachment point.

The test subjects shall be directly supervised throughout the procedure

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.129 Version 1

Number of pages: 1	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 13.06.2019 ☒ Horizontal Committee 15.09.2019 ☒ EU PPE Expert Group 14.03.2022

Question related to ☒ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: EN 353-1:2014 + A1:2017 ☐ Other:

Article: Annex: Clause:

Key words:

Guided type fall arrester, closing mechanism

Question:

How to check the complete closure of the opening mechanism of a guided type fall arrester?

Preliminary note:

After fitting or refitting the guided type fall arrester back onto the rigid anchor line in accordance with the manufacturer's instructions and information, there shall be complete closure of the opening mechanism and the self-locking fall arrest function shall be free to operate.
The design of the fall arrester shall be such that it is not possible to use it in a not completely closed position.

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).

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.130 Version 1

Number of pages: 1	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 13.06.2019 ☒ Horizontal Committee 15.09.2019 ☒ EU PPE Expert Group 14.03.2022

Question related to ☒ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: EN 358:2018 ☐ Other:

Article: Annex: Clause:

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 strength test on Waist belt with integrated lanyard) as it could be understood to test with full length of the lanyard minus 300mm?

Solution:

The dynamic strength test of a waist belt with integrated lanyard can be carried out with a specific sample of 1,3m long, provided for the purpose of the test by the manufacturer

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.131 Version 1

Number of pages: 1	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 13.06.2019 ☒ Horizontal Committee 15.09.2019 ☒ EU PPE Expert Group 14.03.2022

Question related to ☒ PPE Regulation ☐ PPE Guidelines		☒ EN/prEN: EN 358:2018, EN 361:2002, EN 813:2008, EN 12277+A1:2018	☐ Other:
Article:	Annex:	Clause:	

Key words:

Fastening elements, harness, sit harness

Question:

Should all fastening elements that are part of a harness/sit harness EN 361:2002, EN 813:2008 or EN 12277+A1:2018 so designed and constructed that they can be opened by pushing two buttons be tested according to EN 358:2018 clauses 4.1.2.1 to 4.2.3 and clauses 5.2.2 to 5.2.5?

Solution:

Yes

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.132 Version 1

Number of pages: 1	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 13.06.2019 ☒ Horizontal Committee 15.09.2019 ☒ EU PPE Expert Group 14.03.2022

Question related to ☒ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: EN 361:2002 ☐ Other: 11.062

Article: Annex: Clause:

Key words:

Maximum rated load, 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.

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.133 Version 1

Number of pages: 1	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 13.06.2019 ☒ Horizontal Committee 15.09.2019 ☒ EU PPE Expert Group 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 mountaineering rope, low stretch kernmantel rope, construction

Question:

Should each construction (braiding,core yarns,...) of dynamic mountaineering ropes EN 892:2012+A1:2016 or low stretch kernmantel ropes EN 1891:1998 be tested ?

Solution:

Yes

	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/11.135 Version 1

Number of pages: 1	Approval stage : Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'	☒ Vertical Group 13.06.2019 ☒ Horizontal Committee 15.09.2019 ☒ EU PPE Expert Group 14.03.2022

Question related to ☒ PPE Regulation ☐ PPE Guidelines ☒ EN/prEN: EN 795:2012, EN 354 2010, EN 362/2004, EN 12275:2013 ☐ Other:

Article: Annex: Clause:

Key words:

Swivel, use for work, industry, mountaineering

Question:

How to assess swivel used by a person for fall protection for industry or mountaineering?

Solution:

Example:

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 not openable

As there is no relevant EN standard, the NB shall apply the Essential Health and Safety Requirement 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 and not less than 20kN. The device shall withstand the force.

2- Corrosion test: following EN 354:2010 (articles 4.7 and 5.9)

3- Marking: applicable requirements of EN 12275:2013 and EN 365:2004, with strength value in 'kN' claimed by the manufacturer (whole number) but no reference to a EN standard.

4- Instructions for use: applicable requirements of EN 12275:2013 and EN 365:2004 : how to use it, type of connectors to use, breaking strength in 'kN',… but no reference to a EN standard.