

Fire helmet standards comparison

Since end of 2014 two standards for fire helmets have become effective in Europe in addition to the EN 443:2008 standard. In particular, they will define the requirements for use in wildland fire fighting (EN 16471:2014) and technical rescue operations (EN 16473:2014). This information is to help you identify the similarities and differences between the specified standards and their applicability for our products.



STANDARD DESCRIPTION AND PRODUCT RELEVANCE

EN 443:2008—Helmets for fire fighting in buildings and other structures.

To ensure even better protection for fire fighters, the EN 443:2008 standard specifies extended safety requirements which have been adapted to the newest findings about material properties and manufacturing technologies. Some of the main requirements a fire helmet has to meet are: impact and shock absorbance, effectiveness and strength of the fastening system, lateral stability, stability of the electrical insulation, penetration, heat and flame resistance, visor shield and visor/face protector. The chemical test is optional in this standard, but is performed by default for our products.

Approved products

Dräger HPS® 4300, 4500, 6200, 7000

EN 16471:2014—Fire fighting helmets—Helmets for wildland fire fighting

As the conditions are different, other requirements apply for wildland fire fighting than for fighting fires in buildings and other structures. The decisive requirements for a fire helmet here are heat and flame protection and shock absorbance.

Approved products

Dräger HPS 3500

EN 16473:2014—Fire fighters helmets—Helmets for technical rescue

The main purpose of helmets for technical rescue is protection against electrical, mechanical and chemical hazards. Thermal protection also has to be guaranteed.

Approved products

Dräger HPS 3500



D-69662-2012

HPS® 7000 Pro
With integrated helmet lamp and separate helmet lamp



D-37102-2015

HPS® 3500

PRACTICAL IMPLEMENTATION

Fire helmets certified according to EN 443:2008 can continue to be used for fire fighting in buildings and in the open as well as for technical rescue operations. In particular, some of the test require-

ments according to EN 443:2008 are even higher and the requirements of the EN 16471:2014 and EN 16473:2014 standards are therefore also fully met. The following overview shows a comparison of the respective tests.

The new multifunctional rescue helmet Dräger HPS 3500, approved in accordance with EN 16471:2014, EN 16473:2014 and EN 12492:2012 (helmets for mountaineers), is the answer of Dräger to the demand of these special applications.

STANDARDS OVERVIEW

Tests	Standards		
	EN 443:2008	EN 16473:2014	EN 16471:2014
Shock absorbance test	+++	+	+
Penetration test	+++	+	+
Lateral deformation	+++	++	–
Effectiveness of the fastening system	+++	+++	+++
Strength of the fastening system	+++	++	++
Radiant heat	+++	–	+
Protection against hot solid objects	+++	–	++
Protection against molten metal	+++	–	–
Heat resistance	+++	+++	+++
Flame resistance	+++	+	+
Electrical properties (E1, E2, E3)	+ (+ +) optional	+ + (+) optional	–
Contact with liquid chemicals (c)	(+) optional	+	–
Protection against particles with high velocity	+++	+++	–
Visor shield (horizontal, vertical)	+++	+++	+++
Visor/face protector (EN 14458)	+++	+++	–

Level of requirements/protection:

high: +++ / medium: ++ / low: + / not applicable: –

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