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Zaščitna obleka za gasilce - Zahteve in preskusne metode za zaščitne gasilske kapuce

Protective clothing for firefighters - Requirements and test methods for fire hoods for firefighters

Schutzkleidung für die Feuerwehr - Anforderungen und Prüfverfahren für Feuerschutzhauben für die Feuerwehr

Habillement de protection pour sapeurs-pompiers - Exigences et méthodes d'essai pour les cagoules de protection contre le feu pour sapeurs-pompiers

Ta slovenski standard je istoveten z: prEN 13911

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13.340.20	Varovalna oprema za glavo	Head protective equipment

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English Version

Protective clothing for firefighters - Requirements and test methods for fire hoods for firefighters

Vêtements de protection pour les sapeurs-pompiers -
Exigences et méthodes d'essai pour les cagoules de
protection contre le feu pour sapeurs-pompiers

Schutzkleidung für die Feuerwehr - Anforderungen
und Prüfverfahren für Feuerschutzhauben für die
Feuerwehr

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 162.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

This draft European Standard was established by CEN in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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prEN 13911:2024 (E)**European foreword**

This document (prEN 13911:2024) has been prepared by Technical Committee CEN/TC 162 “Protective clothing including hand and arm protection and lifejackets”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 13911:2007.

prEN 13911:2024, Annex E includes the significant technical changes with respect to EN 13911:2007.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For the relationship with EU Legislation, see informative Annex ZA, which is an integral part of this document.

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Introduction

This document specifies the minimum safety requirements and test methods for a firehood worn by a firefighter following a user risk assessment. When worn with protective clothing, breathing apparatus and helmet, the design features and performance requirements of the firehood are intended to provide protection to the exposed areas of the head and neck against heat and flame.

Firehoods can be used in different end uses, both over and underneath the facemask and with different shapes of helmets. It is the user's responsibility to choose the right firehood appropriate to the garment, helmet, and facemask.

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prEN 13911:2024 (E)**1 Scope**

This document specifies minimum safety requirements and test methods for a firehood to be worn during firefighting operations to protect against heat and fire.

This document has two optional requirements: firehoods can be either with a ventilation window for comfort, or a barrier for protection against particulate contaminants, or both.

This document applies in situations when protective clothing (e.g. EN 469, EN ISO 15384), respiratory protection devices (e.g. EN 136 and EN 137), and helmet (e.g. EN 443, EN 16471) are also worn.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 136:1998,¹ *Respiratory protective devices — Full face masks — Requirements, testing, marking*

EN 137:2006, *Respiratory protective devices — Self-contained open-circuit compressed air breathing apparatus with full face mask — Requirements, testing, marking*

EN 168:2001, *Personal eye-protection — Non-optical test methods*

EN ISO 3146:2022, *Plastics — Determination of melting behaviour (melting temperature or melting range) of semi-crystalline polymers by capillary tube and polarizing-microscope methods (ISO 3146:2022)*

EN ISO 5077:2008, *Textiles — Determination of dimensional change in washing and drying (ISO 5077:2007)*

EN ISO 6942:2022, *Protective clothing — Protection against heat and fire — Method of test: Evaluation of materials and material assemblies when exposed to a source of radiant heat (ISO 6942:2002)*

EN ISO 9151:2016, *Protective clothing against heat and flame — Determination of heat transmission on exposure to flame (ISO 9151:2016, Corrected version 2017-03)*

EN ISO 11092:2014, *Textiles — Physiological effects — Measurement of thermal and water-vapour resistance under steady-state conditions (sweating guarded-hotplate test) (ISO 11092:2014)*

EN ISO 13688:2013, *Protective clothing — General requirements (ISO 13688:2013)*

EN ISO 13938-1:2019, *Textiles — Bursting properties of fabrics — Part 1: Hydraulic method for determination of bursting strength and bursting distension (ISO 13938-1:2019)*

EN ISO 14116:2015, *Protective clothing — Protection against flame — Limited flame spread materials, material assemblies and clothing (ISO 14116:2015)*

EN ISO 15025:2016, *Protective clothing — Protection against flame — Method of test for limited flame spread (ISO 15025:2016)*

ISO 8559-1:2017, *Size designation of clothes — Part 1: Anthropometric definitions for body measurement*

ISO 11610:2023, *Protective clothing — Vocabulary*

¹ As impacted by EN 136:1998/AC:2003.

ISO 17493:2016, *Clothing and equipment for protection against heat — Test method for convective heat resistance using a hot air circulating oven*

NFPA 1971:2018, *Standard on Protective Ensembles for Structural Firefighting and Proximity Fire Fighting*

ASTM F2299-03:2017, *Standard Test Method for Determining the Initial Efficiency of Materials Used in Medical Face Masks to Penetration by Particulates Using Latex Spheres*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 11610:2023 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp/>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

area of protection (helmet)

specific area on a headform for which protection is intended to be provided by the helmet

[SOURCE: EN 443:2008]

3.2

area 1a (helmet)

area situated above plane 'AA' as defined in Figure 1 (a) and b))

[SOURCE: EN 443:2008]

3.3

area 1b (helmet)

area situated between plane 'AA' and points CDEF as defined in Figure 1 (a) and b))

[SOURCE: EN 443:2008]

3.4

area 3a (helmet)

area on the neck-guard from the lower edge of the shell to the lower edge of the neck-guard and rearward from the vertical transverse plane, or part thereof (see Figure 1 (a) and b))

[SOURCE: EN 443:2008]

3.5

cleaning

process by which PPE is made serviceable and/or hygienically wearable by removing any dirt or contamination

3.6

conditioning

keeping samples under standard conditions of temperature and relative humidity for a minimum period of time

prEN 13911:2024 (E)**3.7****component assembly**

combination of all materials of a multi-layer garment presented exactly as the finished garment construction

3.8**facial opening**

opening in the front of the firehood interfacing with the breathing apparatus facemask

3.9**firehood**

the firehood covers the neck and the area of the head which is not protected by the facemask

Note 1 to entry: The firehood ensures the junction between the helmet and garment.

3.10**garment**

single item of clothing which may consist of single or multiple layers

3.11**interface area**

area where individual items meet and/or overlap

3.12**material**

substances excluding hardware and labels, of which an item of clothing is made

3.13**particulate protection**

barrier layer that blocks ingress of very small particles of substances produced through combustion and dispersed in air

3.14**pre-treatment**

standard way of preparing the samples before testing

Note 1 to entry: This might include e.g. a number of cleaning cycles, submitting the sample to heat, mechanical action or any other relevant exposure and is finished by conditioning.

3.15**type A helmet (Figure 2)**

helmet protecting at least area 1 a (Figure 1 b))

Note 1 to entry: Same as definitions in EN 443:2008 (4.15.1).

3.16**type B helmet (Figure 2)**

helmet protecting at least areas 1 a and 1 b (Figure 1 b))

Note 1 to entry: Same as definitions in EN 443:2008 (4.15.1).

3.17**seam**

permanent fastening between two or more pieces of material