

SLOVENSKI STANDARD
oSIST prEN ISO 11612:2011
01-junij-2011

Varovalna obleka - Obleka za zaščito pred toploto in plamenom - Minimalne zahtevane lastnosti (ISO/DIS 11612:2011)

Protective clothing - Clothing to protect against heat and flame - Minimum performance requirements (ISO/DIS 11612:2011)

Schutzkleidung - Kleidung zum Schutz gegen Hitze und Flammen (ISO/DIS 11612:2011)

Vêtements de protection - Vêtements de protection contre la chaleur et les flammes - Exigences de performance minimales (ISO/DIS 11612:2011)

Ta slovenski standard je istoveten z: prEN ISO 11612

ICS:

13.340.10	Varovalna obleka	Protective clothing
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en,fr,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN ISO 11612

March 2011

ICS 13.340.10

Will supersede EN ISO 11612:2008

English Version

**Protective clothing - Clothing to protect against heat and flame -
Minimum performance requirements (ISO/DIS 11612:2011)**

Vêtements de protection - Vêtements de protection contre
la chaleur et les flammes - Exigences de performance
minimales (ISO/DIS 11612:2011)

Schutzkleidung - Kleidung zum Schutz gegen Hitze und
Flammen (ISO/DIS 11612:2011)

This draft European Standard is submitted to CEN members for parallel 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
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (prEN ISO 11612:2011) 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, in collaboration with Technical Committee ISO/TC 94 "Personal safety - Protective clothing and equipment".

This document is currently submitted to the parallel Enquiry.

This document will supersede EN ISO 11612:2008.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

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DRAFT INTERNATIONAL STANDARD ISO/DIS 11612

ISO/TC 94/SC 13

Secretariat: **SNV**Voting begins on
2011-03-24Voting terminates on
2011-08-24

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Protective clothing — Clothing to protect against heat and flame — Minimum performance requirements

Vêtements de protection — Vêtements de protection contre la chaleur et les flammes — Exigences de performance minimales

[Revision of second edition (ISO 11612:2008)]

ICS 13.340.10

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ISO/CEN PARALLEL PROCESSING

This draft has been developed within the European Committee for Standardization (CEN), and processed under the **CEN-lead** mode of collaboration as defined in the Vienna Agreement.

This draft is hereby submitted to the ISO member bodies and to the CEN member bodies for a parallel five-month enquiry.

Should this draft be accepted, a final draft, established on the basis of comments received, will be submitted to a parallel two-month approval vote in ISO and formal vote in CEN.

In accordance with the provisions of Council Resolution 15/1993 this document is circulated in the English language only.

Conformément aux dispositions de la Résolution du Conseil 15/1993, ce document est distribué en version anglaise seulement.

To expedite distribution, this document is circulated as received from the committee secretariat. ISO Central Secretariat work of editing and text composition will be undertaken at publication stage.

Pour accélérer la distribution, le présent document est distribué tel qu'il est parvenu du secrétariat du comité. Le travail de rédaction et de composition de texte sera effectué au Secrétariat central de l'ISO au stade de publication.

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 11612 was prepared by Technical Committee ISO/TC 94, *Personal safety - Protective clothing and equipment*, Subcommittee SC 13, *Protective clothing*.

This edition cancels and replaces ISO 11612:2008. It has been prepared in order to:

- a) include test procedure for dry-cleaning in normative references;
- b) modify clause in design requirements regarding garment overlaps;
- c) modify clause in design requirements regarding the areas of the body covered by protective suits;
- d) modify clause for ageing due to washing (maximum number of cleaning procedures as indicated by the manufacturer);
- e) modify pretreatment clause to include requirements for single use garments;
- f) modify pretreatment clause to specify dimensional stability is carried out after five cleaning cycles;
- g) include modified procedure when measuring dimensional stability;
- h) modify requirement for optional heat resistance testing at 260°C;
- i) modify requirement that hardware is tested only after pretreatment;
- j) include statement for flame spread testing in regard to interlining materials;
- k) modify test procedure for the flame testing of Labels, badges, retro-reflective materials;
- l) modify requirements for tear strength;
- m) specify test area for burst strength testing;
- n) specify limit for CR(VI) Content;
- o) update reference in electric arc clause to include IEC 61482- 2;

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- p) update observation clause (e) in Annex C prediction of burn injury using an instrumented manikin;
- q) update references to Annex F to include IEC 61482-1-1, IEC 61482-1-2 and IEC 61482-2;
- r) specify that Uncertainty of Measurement - Annex G is normative;
- s) update bibliography to include IEC 61482-1-1;

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Introduction

The purpose of this International Standard is to provide minimum performance requirements for clothing to protect against heat and flame, which could be worn for a wide range of end uses. All the other standards listed in the Foreword deal also with clothing to protect against heat and fire, but rather for quite specific products or end uses.

Within many of the hazards listed in this International Standard there are three performance levels:

- Level 1 to indicate exposure to perceived low risk;
- Level 2 to indicate exposure to perceived medium risk;
- Level 3 to indicate exposure to perceived high risk.

For protection against extreme exposures to radiant heat, there is a fourth performance level to take into account high performance materials such as aluminized and similar materials. The level of personal protection to be provided is based on the outcome of the risk assessment and some comments on risk assessment are given in Annex E.

In this International Standard, an informative annex on ergonomic features (Annex D) is included in the form of guidelines. Suitable tests for these requirements have not yet been validated internationally.

For complete protection against exposure to heat and/or flame, it is probable that it will be necessary to protect the head, face, hands and/or feet with suitable PPE and in some cases, appropriate respiratory protection might also be considered necessary.

Attention is drawn to CEN Technical Report CEN/TR 14560:2004 [1], which sets out guidelines for selection, use, care and maintenance of protective clothing against heat and flame.

Nothing in this International Standard is intended to restrict any jurisdiction, purchaser or manufacturer from exceeding these minimum requirements. It is one of several standards for clothing that have been developed to protect persons against heat and/or flames. Other standards include:

- ISO 11611, *Protective clothing for use in welding and allied processes*;
- ISO 11613, *Protective clothing for firefighters — Laboratory test methods and performance requirements*;
- ISO 14460, *Protective clothing for automobile racing drivers — Protection against heat and flame — Performance requirements and test methods*;
- ISO 15384, *Protective clothing for firefighters — Laboratory test methods and performance requirements for wildland firefighting clothing*;
- ISO 15538, *Protective clothing for firefighters — Laboratory test methods and performance requirements for protective clothing with a reflective outer surface*;
- EN 469, *Protective clothing for firefighters — Performance requirements for protective clothing for firefighting*;
- EN 1486, *Protective clothing for fire-fighters — Test methods and requirements for reflective clothing for specialised fire fighting*;
- EN 13911, *Protective clothing for firefighters — Requirements and test methods for fire hoods for firefighters*;