



SLOVENSKI STANDARD SIST EN ISO 11612:2009

01-februar-2009

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Protective clothing - Clothing to protect against heat and flame (ISO 11612:2008)

Schutzkleidung - Kleidung zum Schutz gegen Hitze und Flammen (ISO 11612:2008)

Vêtements de protection - Vêtements de protection contre la chaleur et les flammes (ISO 11612:2008)

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Ta slovenski standard je istoveten z: **EN ISO 11612:2008**

ICS:

13.340.10 Varovalna obleka Protective clothing

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 11612

November 2008

ICS 13.340.10

Supersedes EN 531:1995

English Version

**Protective clothing - Clothing to protect against heat and flame
(ISO 11612:2008)**

Vêtements de protection - Vêtements de protection contre
la chaleur et les flammes (ISO 11612:2008)

Schutzkleidung - Kleidung zum Schutz gegen Hitze und
Flammen (ISO 11612:2008)

This European Standard was approved by CEN on 8 October 2008.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

This European Standard exists 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 Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN ISO 11612:2008) 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 European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2009, and conflicting national standards shall be withdrawn at the latest by May 2009.

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

This document supersedes EN 531:1995.

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 EC Directive(s).

For relationship with EC Directive, see informative Annex ZA, which is an integral part of this document.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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Endorsement notice

The text of ISO 11612:2008 has been approved by CEN as a EN ISO 11612:2008 without any modification.

Annex ZA (informative)

Relationship between this International Standard and the Essential Requirements of EU Directive 89/686/EEC

This International Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide one means of conforming to Essential Requirements of the New Approach Directive 89/686/EEC on the approximation of the laws of the Member States relating to personal protective equipment.

Once this standard is cited in the Official Journal of the European Communities under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding Essential Requirements of that Directive and associated EFTA regulations.

Table ZA.1 — Correspondence between this International Standard and Directive 89/686/EEC

Clause(s)/sub-clause(s) of this International Standard	Essential Requirements (ERs) of EU Directive 89/686/EEC, Annex II	Qualifying remarks/Notes
4.3, 4.5 c)	3.6.1 Protection against heat and/or fire. PPE constituent materials and other components	
4.1, 4.2, 4.4, 4.5	1.2.1 Absence of risks and other 'inherent' nuisance factors	
5.2	1.4 Information supplied by manufacturer	
5.2.3	2.4 PPE subject to ageing	
6.2	1.2.1 Absence of risks and other 'inherent' nuisance factors	
6.3	3.6.1 Protection against heat and fire. PPE constituent materials and other components	
6.4	1.2.1 Absence of risks and other 'inherent' nuisance factors	
6.5	1.3.2 Lightness and design strength	
6.6 a)	3.6.2 Protection against heat and fire. Complete PPE ready for use	
6.6 b)	2.2 PPE 'enclosing' the parts of the body to be protected	
6.8	1.2.1 Absence of risks and other 'inherent' nuisance factors	
6.9.2, 6.9.3	1.2.1.1 Suitable constituent materials	Partially

Table ZA.2 (continued)

Clause(s)/sub-clause(s) of this International Standard	Essential Requirements (ERs) of EU Directive 89/686/EEC, Annex II	Qualifying remarks/Notes
7.2, 7.3, 7.4, 7.5, 7.6	1.1.2.2 Classes of protection appropriate to different levels of risk	
7.2, 7.3, 7.4, 7.5, 7.6	3.6.1 Protection against heat and fire. PPE constituent materials and other components	Visors not covered
7.2, 7.3, 7.4, 7.5, 7.6	3.6.2 Protection against heat and fire. Complete PPE ready for use	Visors not covered
8	2.12 PPE bearing one or more identification or recognition marks directly or indirectly relating to health and safety	
9	1.4 Information supplied by the manufacturer	

WARNING — Other requirements and other EU Directives may be applicable to the products falling within the scope of this standard.

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INTERNATIONAL STANDARD

ISO
11612

Second edition
2008-11-01

Protective clothing — Clothing to protect against heat and flame

*Vêtements de protection — Vêtements de protection contre la chaleur
et les flammes*

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ISO 11612:2008(E)

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 second edition cancels and replaces the first edition (ISO 11612:1998). It has been prepared in order to:

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- a) introduce the principle of three performance levels for heat transmission performance properties, with the exception of a fourth level for extreme exposure to radiant heat;
- b) include new terms and definitions,
- c) include a chapter on clothing design;
- d) include modifications to pre-treatment, pre-treatment by cleaning and ageing;
- e) include a heat resistance test as a minimum requirement;
- f) include a second possible procedure for limited flame spread (code letter A);
- g) include flame spread requirements for seams;
- h) modify requirements for dimensional change due to cleaning;
- i) specify additional requirements for tensile, tear, burst and seam strength;
- j) include the optional requirements of resistance to water penetration and of water vapour resistance (code letter W);
- k) include guidance for ergonomic assessment of clothing;
- l) include requirements for maximum fat content of leather;
- m) specify requirements for innocuousness;
- n) change from five to three performance levels for exposure to convective heat (code letter B);

- o) readjust the four performance levels for exposure to radiant heat (code letter C) as a consequence of the revision of ISO 6942:1993 to ISO 6942:2002;
- p) include requirement for protection against contact heat (code letter F);
- q) include guidance for optional assessment of protection against the thermal effects of an electric arc;
- r) include optional whole garment testing for prediction of burn injury;
- s) modify marking requirements;
- t) replace the clause “Instructions for use” by a new clause “Information supplied by the manufacturer”;
- u) include an informative annex on guidelines for clothing design;
- v) include an informative annex on prediction of burn injury using an instrumented manikin;
- w) include an informative annex on checking of basic ergonomic features of protective clothing;
- x) include an informative annex on risk assessment;
- y) include an informative annex on protection against the thermal effects of an electric arc event;
- z) include an informative annex for uncertainty of measurement.

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