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Second edition
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Protective clothing — Protection against flame — Limited flame spread materials, material assemblies and clothing

*Vêtements de protection — Protection contre les flammes —
Matériaux, assemblages de matériaux et vêtements à propagation de
flamme limitée*



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Contents

	Page
Foreword	iv
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 General and design requirements	3
5 Sampling, pre-treatment, and ageing	4
5.1 Sampling.....	4
5.2 Pre-treatment of material.....	4
5.3 Ageing.....	4
5.4 Conditioning.....	5
6 Performance requirements	5
6.1 Limited flame spread performance.....	5
6.2 Physical requirements.....	6
6.2.1 Tensile Strength.....	6
6.2.2 Tear strength.....	6
6.2.3 Burst strength.....	6
6.2.4 Seam strength.....	6
6.3 Dimensional change of textile materials.....	7
7 Classification	7
7.1 Requirements for limited flame spread index 1.....	7
7.2 Requirements for limited flame spread index 2.....	7
7.3 Requirements for limited flame spread index 3.....	7
8 Marking	8
8.1 Final index.....	8
8.2 Single-layer materials.....	8
8.3 Material assemblies.....	8
8.4 Garments.....	8
9 Information supplied by the manufacturer	9
Annex A (normative) Uncertainty of measurement	10
Annex B (normative) Determination of property values for rating and classification	11
Bibliography	12

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 94, *Personal safety - Protective clothing and equipment*, Subcommittee SC 13, and by Technical Committee CEN/TC 162, *Protective clothing including hand and arm protection and lifejackets* in collaboration.

This second edition cancels and replaces the first edition (ISO 14116:2008), which has been technically revised to include the following changes:

- include test procedures for burst strength testing of woven materials;
- include new definition for determination of hole formation;
- modify clause in design requirements regarding garment overlaps;
- modify clause on sampling requirements;
- modify pre-treatment clause to include requirements for single use garments;
- modify clause for ageing due to washing (maximum number of cleaning procedures as indicated by the manufacturer);
- include new requirement for measuring property value for rating and classification;
- modify test procedure for the flame testing of labels, badges, and retro-reflective materials;
- include requirement and procedure for testing of hardware;
- include requirement and test procedure for burst strength testing of knitted materials;
- include requirement and test procedure for tensile strength testing of non-woven materials;
- include requirement and test procedure for tear strength testing of non-woven materials;
- modify requirement for tear strength of woven and non-woven materials;
- modify flame spread definition;

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- modify requirement for flaming debris;
- modify afterflame requirement for flame spread of Index 3 materials;
- modify afterglow requirement for flame spread of Index 1, Index 2, and Index 3 materials.;
- include statement for flame spread testing in regard to interlining materials for Index 2 and Index 3 materials;
- include normative Annex for uncertainty of measurement;
- include normative Annex for measuring property value for rating and classification.

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Introduction

The purpose of this International Standard is to provide minimum performance requirements for clothing in order to reduce the possibility of the clothing and/or its materials burning when in occasional and brief contact with small flames and thereby, itself constituting a hazard.

For complete protection against exposure to flame, 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 ISO/TR 2801:2007,^[5] which sets out guidelines for selection, use, care, and maintenance of protective clothing against flame.

Nothing in this International Standard is intended to restrict any jurisdiction, purchaser, or manufacturer from exceeding these minimum requirements.