

Kaitserõivaste materjali hõõrdekindlus. Katsemeetod

Abrasion resistance of protective clothing material - Test methods

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 530:2010 sisaldab Euroopa standardi EN 530:2010 ingliskeelset teksti.

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English Version

Abrasion resistance of protective clothing material - Test methods

Résistance à l'abrasion du matériau constitutif d'un
vêtement de protection - Méthodes d'essai

Abriebfestigkeit von Material für Schutzkleidung -
Prüfverfahren

This European Standard was approved by CEN on 19 June 2010.

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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

Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 530:2010) 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 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of an identical text or by endorsement, at the latest by January 2011, and conflicting national standards shall be withdrawn at the latest by January 2011.

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 530:1994.

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).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

Annex A provides details of significant technical changes between this European Standard and the previous edition EN 530:1994.

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, Croatia, 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.

Introduction

This document describes testing of abrasion resistance of materials for protective clothing. It should be noted that in order to carry out the abrasion test according to this document the following parameters are to be specified:

- abradant;
- replacement of the abradant;
- conditioning and testing atmosphere;
- debris removal;
- pressure applied;
- judgement of deterioration in case of using method 1;
- number of cycles in case of using method 2.

In general these parameters are specified in product standards.

1 Scope

This European Standard describes two test methods on abrasion resistance of materials using the same abrasion apparatus. The first method describes the determination of the abrasion resistance of protective clothing materials. The second method describes abrasion pre-treatment of these materials where the test specimens are used afterwards in other test methods or for evaluating the remaining protective properties.

The abradant is regarded to be a woven wool fabric for the purposes of this standard.

If other abrasants (e.g. glass paper) are used, they should be specified in the requirement standard. Mounting instructions of special abrasants should be described in requirement standards.

This European Standard is applicable as a reference standard on abrasion for standards and specifications on protective clothing textile materials.

2 Normative references

The following referenced documents are indispensable for the application 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 ISO 139:2005, *Textiles — Standard atmospheres for conditioning and testing (ISO 139:2005)*

EN ISO 12947-1:1998, *Textiles — Determination of the abrasion resistance of fabrics by the Martindale method — Part 1: Martindale abrasion testing apparatus (ISO 12947-1:1998)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

specimen breakdown

- in woven fabrics, when two separate threads are completely broken;
- in knitted fabrics, when one thread is broken down causing a hole to appear;
- in pile fabrics, when the pile is fully worn off;
- in nonwovens, when the first hole resulting from the wear is of a diameter at least equal to 0,5 mm;
- in coated material, when coating surface has the first hole resulting from the wear of a diameter at least equal to 0,5 mm (hole does not have to be through material)

3.2

abrasion rub

one revolution of the outer drives of the Martindale abrasion tester

3.3

test interval

amount of rubs to be preset for mandatory abrasion stop for breakdown evaluation and for cleaning the specimen and abradant or to change it