

**Textiles - Determination of the abrasion resistance of fabrics by the Martindale method - Part 4: Assessment of appearance change**

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## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 12947-4:2001 sisaldab Euroopa standardi EN ISO 12947-4:1998 + AC:2006 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 18.06.2001 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 12947-4:2001 consists of the English text of the European standard EN ISO 12947-4:1998 + AC:2006.</p> <p>This document is endorsed on 18.06.2001 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b></p> <p>This part of the standard will be applicable to the assessment of the appearance change of specimens covering all textile fabrics including nonwovens and fabrics where the specifier indicates the end performance as having a low abrasion wear life. This method differs appreciably from those in ISO 12947-2 and 12947-3. Tests are performed using the mass of the specimen holder and spindle alone at 198 g.</p>	<p><b>Scope:</b></p> <p>This part of the standard will be applicable to the assessment of the appearance change of specimens covering all textile fabrics including nonwovens and fabrics where the specifier indicates the end performance as having a low abrasion wear life. This method differs appreciably from those in ISO 12947-2 and 12947-3. Tests are performed using the mass of the specimen holder and spindle alone at 198 g.</p>
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**Võtmesõnad:** abrasion resistance, abrasion tests, determination, fabrics, tests, textiles

English version

Textiles

Determination of the abrasion resistance of fabrics  
by the Martindale method

Part 4: Assessment of appearance change  
(ISO 12947-4 : 1998)

Textiles – Détermination de la résistance à l'abrasion des étoffes par la méthode Martindale – Partie 4: Evaluation du changement d'aspect (ISO 12947-4 : 1998)

Textilien – Bestimmung der Scheuerbeständigkeit von textilen Flächengebilden mit dem Martindale-Verfahren – Teil 4: Beurteilung der Oberflächenveränderung (ISO 12947-4 : 1998)

This European Standard was approved by CEN on 1998-12-15.

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 Central Secretariat or to any CEN member.

The European Standards exist 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 Central Secretariat has the same status as the official versions.

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**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

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## Foreword

International Standard

ISO 12947-4 : 1998 Textiles – Determination of the abrasion resistance of fabrics by the Martindale method – Part 4: Assessment of appearance change,

which was prepared by ISO/TC 38 'Textiles' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 248 'Textiles and textile products', the Secretariat of which is held by BSI, as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by June 1999 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

## Endorsement notice

The text of the International Standard ISO 12947-4 : 1998 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to international publications are listed in Annex ZA (normative).

## 1 Scope

This part of ISO 12947 is applicable to the assessment of the appearance change of specimens covering all textile fabrics including nonwovens and fabrics where the specifier indicates the end performance as having a low abrasion wear life. This method differs appreciably from those in ISO 12947-2 and 12947-3.

NOTE Further introductory comments are given in ISO 12947-1.

## 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 12947. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 12947 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 105-A02:1993, *Textiles — Tests for colour fastness — Part A02: Grey scale for assessing change in colour.*

ISO 139:1973, *Textiles — Standard atmospheres for conditioning and testing.*

ISO 2859-1:—<sup>1)</sup>, *Sampling procedures for inspection by attributes — Part 1: Sampling plans indexed by acceptable quality level (AQL) for lot-by-lot inspection.*

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

## 3 Definitions

For the purposes of this part of ISO 12947 the definitions given in ISO 12947-1 apply.

## 4 Principle

A circular specimen is subjected to a defined load and rubbed against an abrasive medium (standard fabric) in a translational movement tracing a Lissajous figure. The specimen holder containing the abrasive medium is additionally freely rotatable around its own axis perpendicular to the plane of the specimen. The evaluation of the abrasion resistance of the textile fabric is determined from assessment of the appearance change.

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1) To be published. (Revision of ISO 2859:1989)