

**Leather - Physical and mechanical tests  
- Determination of abrasion resistance  
of upholstery leather**

Leather - Physical and mechanical tests -  
Determination of abrasion resistance of upholstery  
leather

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 14327:2004 sisaldab Euroopa standardi EN 14327:2003 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 18.05.2004 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 14327:2004 consists of the English text of the European standard EN 14327:2003.</p> <p>This document is endorsed on 18.05.2004 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> This European Standard specifies a method of determining the abrasion resistance of automotive leather.</p>	<p><b>Scope:</b> This European Standard specifies a method of determining the abrasion resistance of automotive leather.</p>
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**Võtmesõnad:** area, furniture, materials testing, mechanical testing, methods, pads, physical testing, preservative agents, procedures, resistance, rubbing fastness, sampling, sampling methods, surfaces, test equipment, test reports, testing, upholstered furniture

ICS 59.140.35

English version

## Leather - Physical and mechanical tests - Determination of abrasion resistance of automotive leather

Cuir - Essais physique et mécanique - Détermination de la résistance à l'abrasion du cuir pour l'automobile

Leder - Physikalische und mechanische Prüfungen - Bestimmung des Abriebwiderstandes von Polsterleder in Kraftfahrzeugen

This European Standard was approved by CEN on 14 November 2003.

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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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

## Contents

1	Scope .....	4
2	Normative references .....	4
3	Principle .....	4
4	Apparatus .....	4
5	Sampling and sample preparation .....	5
6	Procedure .....	5
6.1	Preparation of new wheels.....	5
6.2	Abrasion of test pieces .....	5
6.3	Reconditioning of abrasive wheels.....	6
7	Test report .....	6
Annex A (informative) Sources of apparatus .....		7

## Foreword

This document (EN 14327:2003) has been prepared by Technical Committee CEN/TC 289 "Leather", the secretariat of which is held by UNI.

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 June 2004, and conflicting national standards shall be withdrawn at the latest by June 2004.

Annex A is informative.

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

## 1 Scope

This European Standard specifies a method of determining the abrasion resistance of automotive leather.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN ISO 2418, *Leather - Chemical, physical and mechanical and fastness tests - Sampling location (ISO 2418:2002)*.

EN ISO 2419, *Leather - Physical and mechanical tests - Sample preparation and conditioning (ISO 2419:2002)*.

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

## 3 Principle

The test piece is rotated on a vertical axis against the sliding rotation of two abrading wheels which are pressed against the test piece with a specified force. One abrading wheel rubs the test piece outwards towards the periphery, the other inwards to the centre. Any damage to the test piece is noted along with any change of colour.

NOTE This method is also referred to as the "Taber Test".

## 4 Apparatus

**4.1 Horizontal, motor driven platform**, rotating at 60 rpm  $\pm$  5 rpm.

**4.2 Removable, flat, circular test piece holder**.

**4.3 Pair of pivoted arms**, for holding the abrasive wheels with the inner edge of the wheels 26,20 mm  $\pm$  0,25 mm from the centre of the motor shaft and pressing each abrasive wheel against the test piece with a force of 2,5 N  $\pm$  0,1 N.

**4.4 Vacuum nozzle**, with inlet set just above the upper surface of the test piece.

**4.5 Counter**, indicating the number of revolutions of the platform (4.1).

**4.6 Abrasive wheels**, tungsten carbide or rubber based, width 12,7 mm  $\pm$  0,1 mm, maximum diameter 51,7 mm and minimum diameter 44,0 mm. Abrasive wheels are gradually abraded away during use. The maximum diameter of 51,7 mm is the diameter of a new wheel. Used wheels are discarded when the diameter falls to 44,0 mm. The type of tungsten carbide and rubber based wheels to be used are agreed by the parties involved and the type of wheel used is reported in the test report (7c)). The abrasive wheels used in the test should be of the same diameter.

**4.7 Additional weights**, to increase the force between the abrasive wheel and the test piece to 5 N  $\pm$  0,1 N or 10 N  $\pm$  0,1 N.

**4.8 Specimen mounting sheet**, such as a card of minimum 1,0 mm thickness, with an adhesive where necessary, to keep the test pieces rigid and flat.

**4.9 Vacuum cleaner**, domestic type, with adapter to connect to nozzle (4.4).