Leather - Physical and mechanical tests -Determination of flex resistance by the vamp flex Test Services Service method



#### EESTI STANDARDI EESSÕNA

#### **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN ISO 22288:2009 sisaldab Euroopa standardi EN ISO 22288:2009 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 23.02.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 14.01.2009.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN ISO 22288:2009 consists of the English text of the European standard EN ISO 22288:2009.

This standard is ratified with the order of Estonian Centre for Standardisation dated 23.02.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 14.01.2009.

The standard is available from Estonian standardisation organisation.

ICS 59.140.30

Võtmesõnad:

# Standardite reprodutseerimis- ja levitamisõigus kuulub Eesti Standardikeskusele

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### EUROPEAN STANDARD

#### **EN ISO 22288**

## NORME EUROPÉENNE EUROPÄISCHE NORM

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Supersedes EN 13335:2002

#### **English Version**

## Leather - Physical and mechanical tests - Determination of flex resistance by the vamp flex method (ISO 22288:2006)

Cuir - Essais physiques et mécaniques - Détermination de la résistance à la flexion à l'aide de la méthode de flexion d'empeigne (ISO 22283:2006) Leder - Physikalische und mechanische Prüfungen -Bestimmung der Dauerbiegefestigkeit nach dem Blattbiege-Verfahren (ISO 22288:2006)

This European Standard was approved by CEN on 1 December 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

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

#### **Foreword**

The text of ISO 22288:2006 has been prepared by Technical Committee IULTCS International Union of Leather Technologists and Chemists Societies of the International Organization for Standardization (ISO) and has been taken over as EN ISO 22288:2009 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 July 2009, and conflicting national standards shall be withdrawn at the latest by July 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 13335:2002.

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.

#### **Endorsement notice**

The text of ISO 22288:2006 has been approved by CEN as a EN ISO 22288:2009 without any modification.

# Leather — Physical and mechanical tests — Determination of flex resistance by the vamp flex method

#### 1 Scope

This International Standard specifies a method for determining the wet or dry flex resistance of leather and finishes applied to leather. It is applicable to all types of leather below 3,0 mm in thickness.

#### 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.

ISO 2418, Leather — Chemical, physical and mechanical and fastness tests — Sampling location

ISO 2419, Leather — Physical and mechanical tests — Sample preparation and conditioning

ISO 3696, Water for analytical laboratory use — Specification and test methods

#### 3 Principle

A test piece is folded grain outwards over two inverted "V" shaped clamps. Relative movement of the clamps flexes the sample producing one downward crease surrounded by four upward creases. The test piece is examined periodically for damage.

#### 4 Apparatus

- **4.1 Test machine**, including the parts described in 4.1.1 to 4.1.3 and the crease patterns formed by flexing as shown in Figure 1.
- **4.1.1** A pair of inverted "V" shaped blocks and clamps, with the axis mounted in a straight line with an angle of  $40^{\circ} \pm 1^{\circ}$  and a tip radius of 6,4 mm  $\pm$  0,5 mm and with a minimum distance between the clamps of 9,5 mm  $\pm$  1,0 mm.
- **4.1.2** A means of applying a simple harmonic reciprocating motion to the clamps, to move them apart by  $19.0 \text{ mm} \pm 1.5 \text{ mm}$  and return them to the minimum separation at a rate of oscillation of  $300 \text{ cycles/min} \pm 30 \text{ cycles/min}$ .
- **4.1.3 Counter**, to indicate the number of cycles.

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