17235.

TIKES

ARD Leather - Physical and mechanical tests - Determination of softness (ISO 17235:2011)



# **EESTI STANDARDI EESSÕNA**

## **NATIONAL FOREWORD**

	This Estonian standard EVS-EN ISO 17235:2011
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Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for
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Võtmesõnad: flexible materials, leather, leathercloth, mechanical testing, physical testing, softness, testing,

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# EUROPEAN STANDARD NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

# **EN ISO 17235**

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Supersedes EN ISO 17235:2002

#### **English Version**

# Leather - Physical and mechanical tests - Determination of softness (ISO 17235:2011)

Cuir - Essais physiques et mécaniques - Détermination de la souplesse (ISO 17235:2011)

Leder - Physikalische und mechanische Prüfungen -Bestimmung der Weichheit (ISO 17235:2011)

This European Standard was approved by CEN on 30 November 2011.

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

Management Centre: Avenue Marnix 17, B-1000 Brussels

# **Foreword**

This document (EN ISO 17235:2011) has been prepared by Technical Committee CEN/TC 289 "Leather", the secretariat of which is held by UNI, in collaboration with IULTCS "International Union of Leather Technologists and Chemists Societies"

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of an identical text or by endorsement, at the latest by June 2012, and conflicting national standards shall be withdrawn at the latest by June 2012.

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.

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# Leather — Physical and mechanical tests — Determination of softness

# 1 Scope

This International Standard specifies a non-destructive method for determining the softness of a leather. It is applicable to all non-rigid leathers, e.g. shoe-upper leather, upholstery leather, leather goods leather and apparel leather.

# 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

# 3 Principle

A cylindrical rod of defined mass is lowered at a specified rate onto a securely clamped area of leather. The distension of the leather produced is recorded as the softness.

## 4 Apparatus

- **4.1 Test machine**, shown diagrammatically in Figure 1, including the parts described in 4.1.1 to 4.1.8.
- **4.1.1** Circular aperture (A), diameter 35,0 mm  $\pm$  0,1 mm.
- **4.1.2 Metal rings**, able to fit into aperture A and reduce the diameter of the aperture to 25,0 mm  $\pm$  0,1 mm and 20,0 mm  $\pm$  0,1 mm, respectively.

NOTE The apertures described above are more conveniently referred to by their nominal diameters of 35 mm, 25 mm and 20 mm, respectively.

- **4.1.3 Clamps (B)**, capable of holding the leather securely both before the load pin is released and when the maximum force is applied, whilst leaving the portion over the aperture free to move.
- **4.1.4 Cylindrical load pin (C)**, diameter 4,9 mm  $\pm$  0,1 mm and length 11,5 mm  $\pm$  0,1 mm, rigidly attached to a cylindrical mass (D). The total mass of load pin and cylindrical mass shall be 530 g  $\pm$  10 g.
- **4.1.5 Means of guiding the load pin**, such that the load pin acts perpendicularly to the leather surface and the vertical travel of the load pin is restricted to a distance,  $11.5 \text{ mm} \pm 0.1 \text{ mm}$ .