

**Leather - Physical and mechanical tests -
Determination of the water resistance of
heavy leathers**

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leathers

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 5404:2003 sisaldab Euroopa standardi EN ISO 5404:2002 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 18.02.2003 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 5404:2003 consists of the English text of the European standard EN ISO 5404:2002.</p> <p>This document is endorsed on 18.02.2003 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>Käsitlusala:</p> <p>This International Standard specifies a method for determining the water resistance of heavy leathers. The method allows determination of the penetration time, water absorption, area of penetration and water penetration rate as required. It is applicable to all types of heavy leathers</p>	<p>Scope:</p> <p>This International Standard specifies a method for determining the water resistance of heavy leathers. The method allows determination of the penetration time, water absorption, area of penetration and water penetration rate as required. It is applicable to all types of heavy leathers</p>
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ICS 59.140.30

Võtmesõnad: definition, definitions, flexible materials, hydrolytic resistance, leather, leathercloth, mechanical testing, physical testing, testing, water-resistance tests, watertightness

English version

Leather

**Physical and mechanical tests – Determination of the water
resistance of heavy leathers
(ISO 5404 : 2002)**

**Cuir – Essais physiques et méca-
niques – Détermination de la résis-
tance à l'eau des cuirs épais
(ISO 5404 : 2002)**

**Leder – Physikalische und mechani-
sche Prüfungen – Bestimmung der
Wasserdichtheit von schwerem Leder
(ISO 5404 : 2002)**

This European Standard was approved by CEN on 2002-06-08.

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 Management Centre 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 Management Centre has the same status as the official versions.

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

CEN

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

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

Foreword

International Standard

ISO 5404 : 2002 Leather – Physical and mechanical tests – Determination of the water resistance of heavy leathers,

which was prepared by ISO/TC 120 'Leather' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 289 'Leather', the Secretariat of which is held by UNI, 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 2003 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, Malta, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 5404 : 2002 was approved by CEN as a European Standard without any modification as given above.

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

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1 Scope

This International Standard specifies a method for determining the water resistance of heavy leathers. The method allows determination of the penetration time, water absorption, area of penetration and water penetration rate as required. It is applicable to all types of heavy leathers.

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 2589 *Leather - Physical and mechanical tests - Determination of thickness*

3 Terms and definitions

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

3.1

penetration time

duration of flexing in minutes which is just sufficient to cause water to cross from the wetted (grain) surface to the other face of the test piece

3.2

water absorption

gain in mass of the test piece due to water content during any period of the test, expressed as a percentage of its conditioned mass prior to test

3.3

area of penetration

sum (in square millimetres) of the areas where water has crossed from the wetted (grain) surface to the other face of the test piece

3.4

penetration rate

water transmitted through the leather expressed in grams per square decimetre (of leather) per hour based on the mass of water transmitted in the 10 minute period at the start of the hour

4 Principle

The test piece is continuously wetted on one surface and is flexed and compressed in the same manner as the sole of a shoe during walking. This enables various aspects of heavy leather water resistance to be measured with respect to time.

5 Apparatus

5.1 Test machine, including the items described in 5.1.1 to 5.1.7. The general arrangement of the test machine is shown in Figure 1.