

**Leather - Chemical tests -  
Determination of water-soluble matter,  
water-soluble inorganic matter and  
watersoluble organic matter**

Leather - Chemical tests - Determination of water-soluble matter, water-soluble inorganic matter and watersoluble organic matter

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 4098:2006 sisaldab Euroopa standardi EN ISO 4098:2006 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 27.02.2006 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 4098:2006 consists of the English text of the European standard EN ISO 4098:2006.</p> <p>This document is endorsed on 27.02.2006 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 International Standard specifies a method of determination of water-soluble matter, water-soluble inorganic matter and water-soluble organic matter. It is applicable to all leather types. The result obtained by this analysis depends on factors such as:- the degree to which the leather is ground;- the extraction temperature;- the extraction period;- the ratio of leather to water.</p>	<p><b>Scope:</b> This International Standard specifies a method of determination of water-soluble matter, water-soluble inorganic matter and water-soluble organic matter. It is applicable to all leather types. The result obtained by this analysis depends on factors such as:- the degree to which the leather is ground;- the extraction temperature;- the extraction period;- the ratio of leather to water.</p>
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**EN ISO 4098**

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English Version

**Leather - Chemical tests - Determination of water-soluble matter, water-soluble inorganic matter and water-soluble organic matter (ISO 4098:2006)**

Cuir - Essais chimiques - Détermination des matières solubles dans l'eau, des matières inorganiques solubles dans l'eau et des matières organiques solubles dans l'eau (ISO 4098:2006)

Leder - Chemische Prüfungen - Bestimmung wasserlöslicher Substanzen, wasserlöslicher anorganischer Substanzen und wasserlöslicher organischer Substanzen (ISO 4098:2006)

This European Standard was approved by CEN on 28 December 2005.

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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 Central Secretariat has the same status as the official versions.

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

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## Foreword

This document (EN ISO 4098:2006) has been prepared by Technical Committee IULTCS "the International Union of Leather Technologists and Chemists Societies" in collaboration with 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 2006, and conflicting national standards shall be withdrawn at the latest by July 2006.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, 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 United Kingdom.

## Endorsement notice

The text of ISO 4098:2006 has been approved by CEN as EN ISO 4098:2006 without any modifications.

INTERNATIONAL  
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**Leather — Chemical tests —  
Determination of water-soluble matter,  
water-soluble inorganic matter and water-  
soluble organic matter**

*Cuir — Essais chimiques — Détermination des matières solubles dans  
l'eau, des matières inorganiques solubles dans l'eau et des matières  
organiques solubles dans l'eau*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 4098 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 289, *Leather*, in collaboration with the Chemical Tests Commission of the International Union of Leather Technologists and Chemists Societies (IUC Commission, IULTCS), in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement). It is based on IUC 6 originally published in *J. Soc. Leather Trades Chemists*, 49, p. 13, 1965 and declared an official method of the IULTCS in 1965.

IULTCS, originally formed in 1897, is a world-wide organization of professional leather societies to further the advancement of leather science and technology. IULTCS has three Commissions, which are responsible for establishing international methods for the sampling and testing of leather. ISO recognizes IULTCS as an international standardizing body for the preparation of test methods for leather.

# Leather — Chemical tests — Determination of water-soluble matter, water-soluble inorganic matter and water-soluble organic matter

## 1 Scope

This International Standard specifies a method of determination of water-soluble matter, water-soluble inorganic matter and water-soluble organic matter.

It is applicable to all leather types. The result obtained by this analysis depends on factors such as:

- the degree to which the leather is ground;
- the extraction temperature;
- the extraction period;
- the ratio of leather to water.

To obtain comparable results, it is consequently imperative that test conditions should be accurately reproduced.

In all cases, any ammonium salts in the filtrate are included as part of the water-soluble matter and are then decomposed on ignition. Thus they contribute towards the result for water-soluble organic substances. The concentration of the ammonium salts can be determined in the filtrate separately if required.

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

ISO 4044, *Leather — Preparation of chemical test samples*

ISO 4048, *Leather — Determination of matter soluble in dichloromethane*

ISO 4684, *Leather — Chemical tests — Determination of volatile matter*

## 3 Principle

Following aqueous extraction of a prepared sample under specified conditions, the water-soluble matter is quantified by evaporation and drying at  $(102 \pm 2)$  °C. Sulfating and ashing of the residue at 700 °C yields the water-soluble inorganic matter. The water-soluble organic matter is derived by difference.