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**Leather - Tests for colour fastness - Colour fastness to perspiration**

Leather - Tests for colour fastness - Colour fastness to perspiration

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 11641:2003 sisaldab Euroopa standardi EN ISO 11641 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 26.11.2003 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 11641:2003 consists of the English text of the European standard EN ISO 11641.</p> <p>This document is endorsed on 26.11.2003 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><b>Käsitlusala:</b> This International Standard specifies a method for determining the colour fastness to perspiration of leather of all kinds at all stages of processing, but it applies particularly to gloving, clothing and lining leathers, as well as leather for the uppers</p>	<p><b>Scope:</b> This International Standard specifies a method for determining the colour fastness to perspiration of leather of all kinds at all stages of processing, but it applies particularly to gloving, clothing and lining leathers, as well as leather for the uppers</p>
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ICS 59.140.30

**Võtmesõnad:** clothing, dyeing, gloves

EUROPEAN STANDARD

EN ISO 11641

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English version

Leather - Tests for colour fastness - Colour fastness to perspiration (ISO 11641:1993)

Cuir - Essai de solidité des teintures - Solidité des teintures à la sueur (ISO 11641:1993)

Leder - Farbechtheitsprüfungen - Farbechtheit gegen Schweiß (ISO 11641:2002)

This European Standard was approved by CEN on 10 July 2003.

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.

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

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## Foreword

This document (EN ISO 11641:2003) has been prepared by Technical Committee CEN/TC 289 "Leather", the secretariat of which is held by UNI, in collaboration with the International Union of Leather Technologists and Chemists Societies (IULTCS).

It is based on Method IUF 426 of the 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 January 2004, and conflicting national standards shall be withdrawn at the latest by January 2004.

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.

## Endorsement notice

The text of ISO 11641:1993 has been approved by CEN as EN ISO 11641:2003 without any modifications.

NOTE Normative references to International Standards are listed in annex ZA (normative).

**Annex ZA**  
(normative)

**Normative references to international publications  
with their relevant European publications**

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).

NOTE Where an International Publication has been modified by common modifications, indicated by (mod.), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN</u>	<u>Year</u>
ISO 105-A02	1993	Textiles - Tests for colour fastness - Part A02: Grey scale for assessing change in colour	EN 20105-A02	1994
ISO 105-A03	1993	Textiles - Tests of colour fastness - Part A03: Grey scale for assessing staining	EN 20105-A03	1994
ISO 2419	2002	Leather - Physical and mechanical tests - Sample preparation and conditioning	EN ISO 2419	2002
ISO 3696	1987	Water for analytical laboratory use - Specification and test methods	EN ISO 3696	1995

INTERNATIONAL  
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**ISO**  
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**Leather — Tests for colour fastness —  
Colour fastness to perspiration**

*Cuir — Essais de solidité des teintures — Solidité des teintures à la sueur*



Reference number  
ISO 11641:1993 (E)  
IULTCS/IUF  
426, 1993 Edition

## 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.

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.

International Standard ISO 11641 was prepared by the Fastness Tests Commission of the International Union of Leather Technologists and Chemists Societies (IUF Commission, IULTCS). It is based on IUF 426 published in *J. Soc. Leather Tech. Chem.*, **71**, pp. 22-24 (1987), and declared an official method of the IULTCS in October 1989.

Annexes A and B of this International Standard are for information only.

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# Leather — Tests for colour fastness — Colour fastness to perspiration

## 1 Scope

This International Standard specifies a method for determining the colour fastness to perspiration of leather of all kinds at all stages of processing, but it applies particularly to gloving, clothing and lining leathers, as well as leather for the uppers of unlined shoes.

NOTE 1 During the test, the adjacent fabric used may become stained and the colour of the leather may change.

The method uses an artificial perspiration solution to simulate the action of human perspiration. Since perspiration varies widely from one individual to the next, it is not possible to design a method with universal validity, but the alkaline artificial perspiration solution specified below will give results corresponding to those with natural perspiration in most cases.

NOTE 2 In general, human perspiration is weakly acidic when freshly produced. Microorganisms then cause it to change, the pH usually becoming weakly alkaline (pH 7,5 to 8,5). Alkaline perspiration has a considerably greater effect on the colour of leather than has acid perspiration. An alkaline, rather than acidic, perspiration solution is therefore used to simulate the most demanding conditions encountered in practice.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 105-A02:1993, *Textiles — Tests for colour fastness — Part A02: Grey scale for assessing change in colour.*

ISO 105-A03:1993, *Textiles — Tests for colour fastness — Part A03: Grey scale for assessing staining.*

ISO 105-F10:1989, *Textiles — Tests for colour fastness — Part F10: Specification for adjacent fabric: Multifibre.*

ISO 2419:1972, *Leather — Conditioning of test pieces for physical tests.*

ISO 3696:1987, *Water for analytical laboratory use — Specification and test methods.*

## 3 Principle

A leather specimen is soaked in artificial perspiration solution and a piece of adjacent fabric, also soaked in artificial perspiration solution, laid against each side to be tested. The composite specimen is left under pressure for a specified time in a suitable apparatus. The leather specimen and adjacent fabric are then dried, and the change in colour of the specimen and the staining of the adjacent fabric assessed with the grey scales.

Leathers with a finish may be tested intact or with the finish broken.

## 4 Apparatus and materials

Ordinary laboratory apparatus and