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IULTCS/IUF 412

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Leather — Tests for colour fastness — Change in colour with accelerated ageing

Cuir — Essais de solidité des coloris — Changement de couleur avec vieillissement accéléré

Reference numbers
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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

ISO 17228 was prepared by the Fastness Tests Commission of the International Union of Leather Technologists and Chemists Societies (IUF Commission, IULTCS) in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 289, *Leather*, the secretariat of which is held by UNI, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

It is based on IUF 412 published in *J. Soc. Leather Tech. Chem.*, **86** pp. 325-331, 2002, and declared an official method of the IULTCS in May 2003.

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.

This second edition cancels and replaces the first edition (ISO 17228:2005), which has been technically revised. This new version is a general update of the procedures and in Tables 1, 2, and 3 includes additional ageing options.

Annex A is informative.

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Leather — Tests for colour fastness — Change in colour with accelerated ageing

1 Scope

This International Standard specifies various ageing procedures to obtain an indication of the changes that could occur when leather is exposed to a certain environment for a prolonged time. Over time, the surface colour of leather and the leather itself change due to ageing and to the action of the surroundings on the leather. The test conditions to be used depend on the type of leather and its intended use.

This procedure can also be used to age specimens for the test of dimensional change according to ISO 17130.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 105-A01, *Textiles — Tests for colour fastness — Part A01: General principles of testing*

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

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

ISO 105-A04, *Textiles — Tests for colour fastness — Part A04: Method for the instrumental assessment of the degree of staining of adjacent fabrics*

ISO 105-A05, *Textiles — Tests for colour fastness — Part A05: Instrumental assessment of change in colour for determination of grey scale rating*

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

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

ISO 17130, *Leather — Physical and mechanical tests — Determination of dimensional change*

3 Principle

A test specimen of leather is exposed to at least one of the three following conditions:

— heat (see Clause 6);

— heat and humidity (see Clause 7);

— cycles of different temperature and humidity (see Clause 8).

One or more of these procedures may take place simultaneously. The change in colour of the specimen is assessed with the standard grey scale and, if applicable, any changes in the finish or appearance are noted.

These procedures can also be used to prepare the leather specimen for other physical or fastness tests after accelerated ageing. The assessment of dimension change is described in ISO 17130.

NOTE Accelerated ageing tests are for guidance only and they are not necessarily representative of long term use at ambient temperatures.

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