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International Standard

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IULTCS
IUF 428

Leather — Tests for colour fastness — Colour fastness to hydroalcoholic mixtures

Cuir — Essais de solidité des coloris — Solidité des coloris aux mélanges hydroalcooliques

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

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Foreword

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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).

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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 document 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*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Leather — Tests for colour fastness — Colour fastness to hydroalcoholic mixtures

1 Scope

This document specifies methods for determining the fastness of the surface of leather to hydroalcoholic mixtures.

It is applicable to all kinds of leather.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 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-F09, *Textiles — Tests for colour fastness — Part F09: Specification for cotton rubbing cloth*

ISO 2419, *Leather — Physical and mechanical tests — Specimen and test piece conditioning*

ISO 2813, *Paints and varnishes — Determination of gloss value at 20°, 60° and 85°*

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

ISO 7906, *Leather — Tests for colour fastness — General principles of testing*

ISO 11640, *Leather — Tests for colour fastness — Colour fastness to cycles of to-and-fro rubbing*

ISO 12947-1, *Textiles — Determination of the abrasion resistance of fabrics by the Martindale method — Part 1: Martindale abrasion testing apparatus*

ISO 15115, *Leather — Vocabulary*

ISO 20433, *Leather — Tests for colour fastness — Colour fastness to crocking*

EN 15987, *Leather — Terminology — Key definitions for the leather trade*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 15115, EN 15987 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
hydroalcoholic mixture
combination of substances containing alcohols and water

3.2
test medium
hydroalcoholic mixture (3.1) used in the test methods

3.3
bronzing
change in the surface of a leather giving a metallic appearance

4 Principle

The following methods describe a means of exposing the leather surface to the influence of hydroalcoholic mixtures under specified conditions. These test methods may be applied, considering the frequency and type of use of hydroalcoholic mixtures:

— Method 1: surface wetting using a fabric wetted with the respective test medium.

— Method 2: linear abrasion test of the surface to be assessed against a wool felt or cotton fabric soaked in the respective test medium.

For both methods 1 and 2 evaluation of the leather surface after testing can be carried out by visual and, if required, instrumental inspection.

5 Equipment and materials

5.1 Distilled water (grade 3 according to ISO 3696).

5.2 Pipettes for applying the liquids, error limit at most 0,1 ml.

5.3 Petri dish, with a suitable diameter and height to enable the test specimen to be laid flat and covered by the test liquid i.e. diameter 70 mm to 80 mm and height of 10 mm to 15 mm.

5.4 Cotton cloth pieces according to ISO 105-F09, dimensions: approximately (50 × 50) mm.

5.5 White **wool felt** according to ISO 11640.

5.6 Cleaning agent, sodium lauryl ether sulphate (CAS Registry Number 9004-82-4)[1)], 0,5 % solution in water.

5.7 Grey scale according to ISO 105-A02.

5.8 Grey scale according to ISO 105-A03.

5.9 Polyurethane foam according to ISO 12947-1.

5.10 Heating cabinet.

The heating cabinet shall be equipped with a fan capable of circulating the air inside five times to fifteen times an hour.

The heating cabinet shall be preheated to the temperature to be set in circulating air mode.

5.11 Glass plates of sufficient size with a thickness of (3 ± 0,5) mm.

1) Chemical Abstracts Service (CAS) Registry Number® is a trademark of the American Chemical Society (ACS). This information is given for the convenience of users of this document and does not constitute an endorsement by ISO of the product named. Equivalent products may be used if they can be shown to lead to the same results.