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Leather — Physical and mechanical tests — Determination of water repellency of garment leather

Cuir — Essais physiques et mécaniques — Détermination de la résistance au mouillage superficiel des cuirs pour vêtements

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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).

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 voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html

This document was prepared by the Physical Test Commission of the International Union of Leather Technologists and Chemists Societies (IUP 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 IUP 37 published in *J. Soc. Leather Tech. Chem.*, **86**(7), p. 339, 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 replaces the first edition, ISO 17231:2006. Editorial changes have been made to Clauses 5, 7, 9a, 9e, Annex A and Annex B.

Leather — Physical and mechanical tests — Determination of water repellency of garment leather

1 Scope

This document specifies a method for determining the repellency of leather to surface wetting. It is applicable to all leathers intended for use in clothing. The method does not determine the resistance of leather to water penetration.

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

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

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

3 Terms and definitions

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

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

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

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

3.1
spray rating
measure of the resistance of the surface of a leather to wetting

4 Principle

A specified volume of distilled or deionized water is sprayed onto a test piece, which has been mounted on a ring and placed at an angle of 45° so that the centre of the test piece is at a specified distance below the spray nozzle. The spray rating is determined by comparing the appearance of the test piece with descriptive and photographic standards. The mass of water absorbed by the test piece is determined by weighing before and after applying the water spray.

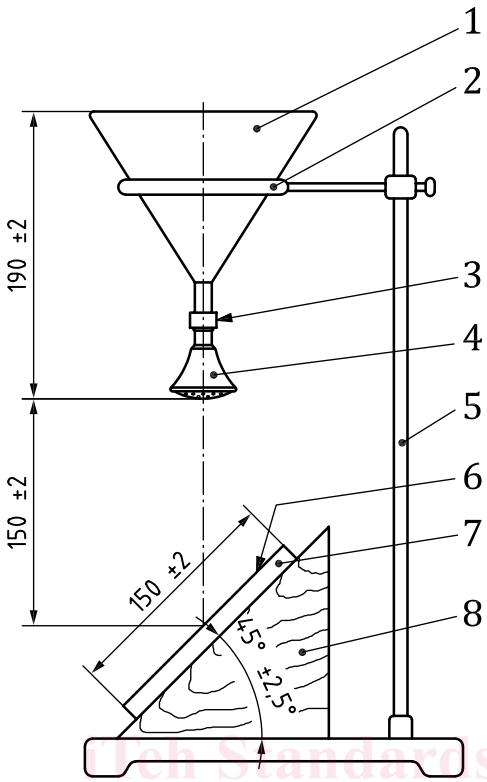
5 Apparatus

5.1 Test machine, including the parts described in 5.2 to 5.4.

NOTE An example of a suitable apparatus available commercially is given in Annex B.

5.2 Spray device, as shown in Figure 1, consisting of a funnel, diameter 150 mm ± 2 mm, held vertically with a metal spray nozzle (5.3) connected to the end of the stem by flexible tubing of bore about 10 mm. The overall distance from the top of the funnel to the bottom of the nozzle is 190 mm ± 2 mm.

Dimensions in millimetres



Key

1 glass funnel Ø 150 ± 2
2 ring support
3 rubber tubing
4 spray nozzle
5 stand
6 specimen
7 specimen holder
8 support (e.g. wood)

Figure 1 — Apparatus for spray test

5.3 Metal spray nozzle, as shown in Figure 2, with approximate diameter of 33 mm, having a convex face with 19 holes of 0,9 mm ± 0,05 mm diameter distributed over the face of the nozzle. The duration of flow for 250 ml ± 5 ml of distilled or deionized water poured into the funnel shall be 27,5 s ± 2,5 s.