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Leather — Physical and mechanical tests — Determination of extension set

Cuir — Essais physiques et mécaniques — Détermination de la déformabilité

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Foreword

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

It is based on IUP 43 published in *J. Soc. Leather Tech. Chem*. **84**, p. 399, 2000, and declared an official method of the IULTCS in March 2001.

This third edition cancels and replaces the second edition (ISO 17236:2016), which has been technically revised.

The main changes are as follows:

— alignment with the changes and revised terminology in ISO 2418 and ISO 2419;

— a new Clause 3 is included.

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.

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Leather — Physical and mechanical tests — Determination of extension set

1 Scope

This document specifies a method for determining the extension set of leather. It is intended for use on upholstery leather but is applicable to all flexible leathers.

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, mechanical and fastness tests — Position and preparation of specimens for testing*

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

ISO 2589, *Leather — Physical and mechanical tests — Determination of thickness*

ISO 7500-1:2018, *Metallic materials — Calibration and verification of static uniaxial testing machines — Part 1: Tension/compression testing machines — Calibration and verification of the force-measuring system*

3 Terms and definitions

No terms and definitions are listed in this document.

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/

4 Principle

A test piece is repeatedly extended at a specified rate until the forces reach a predetermined level and the permanent extension is calculated as a percentage of the original length.

5 Apparatus

5.1 Tensile testing machine, having a force range appropriate to the specimen under test and consisting of a means of recording the force (5.1.1) and jaws (5.1.2) that operate at a uniform speed of separation of (50 mm ± 5 mm)/min.

5.1.1 Means of recording the force, to an accuracy as specified by Class 2 of ISO 7500-1:2018.

5.1.2 Jaws, minimum length 30 mm in the direction of the applied load, designed to apply constant clamping by mechanical or pneumatic means. The texture and design of the inside faces of the jaws shall be such that at the maximum load attained in the test, the test piece does not slip at either jaw.

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