SLOVENSKI STANDARD
oSIST prEN ISO 14268:2021

01-november-2021

Usnje - Fizikalni in mehanski preskusi - Ugotavljanje prepustnosti vodne pare (ISO/DIS 14268:2021)

Leather - Physical and mechanical tests - Determination of water vapour permeability (ISO/DIS 14268:2021)

Leder - Physikalische und mechanische Prüfungen - Bestimmung der Wasserdampfdurchlässigkeit (ISO/DIS 14268:2021)

Cuir - Essais physiques et mécaniques - Détermination de la perméabilité à la vapeur d'eau (ISO/DIS 14268:2021)

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ICS:

59.140.30	Usnje in krzno	Leather and furs

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DRAFT INTERNATIONAL STANDARD

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Leather — Physical and mechanical tests — Determination of water vapour permeability

Cuir — Essais physiques et mécaniques — Détermination de la perméabilité à la vapeur d'eau

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

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.

ISO 14268 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 289, *Leather*, in collaboration with the Physical Tests Commission of the International Union of Leather Technologists and Chemists Societies (IUP Commission, IULTCS), in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

IULTCS, originally formed in 1897, is a worldwide 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.

The first edition was based on IUP 15 originally published in *J. Soc. Leather Trades Chemists*, **44**, p. 502, (1960) and declared an official method of the IULTCS in 1961. An updated version was published in *J. Soc. Leather Tech. Chem.*, **82**, p. 234, (1998) and a further revision published in *J. Soc. Leather Tech. Chem.*, **84**, p. 353, (2000) and reconfirmed as an official method in March 2001.

This third edition cancels and replaces the second edition (ISO 14268:2012), which has been technically revised.

The main changes compared to the previous edition are as follows:

— Introduction included;

— additional clause 3, Terms and definitions;

— additional clause 8 for the new Procedure B – Accelerated test method.

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.

Introduction

ISO 14268 describes two methods (Procedure A and Procedure B) for the water vapour permeability determination.

— The method in accordance with Procedure A is the standard test method for water vapour permeability determination and to be used in any case of discrepancy or dispute.

— The method in accordance with Procedure B is equivalent to the method described in ISO 20344[1] and can be applied for an accelerated routine control in production processes and/or if requested by the client.

Leather — Physical and mechanical tests — Determination of water vapour permeability

1 Scope

This International Standard describes a method for determining the water vapour permeability of leather and provides alternative methods of sample preparation and for the measurement procedure.

2 Normative references

The following referenced documents are indispensable for the application 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 2589, *Leather — Physical and mechanical tests — Determination of thickness*

ISO 5402-1, *Leather — Determination of flex resistance — Part 1: Flexometer method*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological 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

The test piece is clamped over the opening of a container which contains a solid desiccant and is placed in a strong current of air in a standard atmosphere. The air inside the container is constantly agitated by the desiccant which is kept in motion by the rotation of the container. The container is weighed at the start and the end of the test and the mass of moisture which has been absorbed by the desiccant is determined from the difference.

5 Apparatus

5.1 Containers, in the form of jars or bottles, with a neck of internal diameter 30 mm ± 3 mm fitted with a screw top with a circular opening whose diameter is equal to the internal diameter of the neck. Suitable containers typically have a height range of 70 mm to 90 mm.

5.2 Test machine, including the following:

5.2.1 Vertically mounted turntable, rotating at (75 ± 5) r/min, capable of holding containers (5.1) with their axis parallel to and (67 ± 2) mm from the axis of rotation of the turntable.

5.2.2 Fan, mounted in front of the mouths of the containers consisting of three flat blades in planes that are inclined 120° to one another. The planes of the blades pass through the prolongation of the axis of the vertically mounted turntable (5.2.1). The blades are of approximate dimensions 90 mm × 75 mm and the 90 mm side nearest the mouths of the jars passes them at a distance of (10 ± 5) mm. The fan rotates at (1 400 ± 100) r/min with the direction of rotation being opposite to that of the vertically mounted turntable. The general arrangement of the turntable and fan are as shown in Figure 1.

Dimension in millimetres

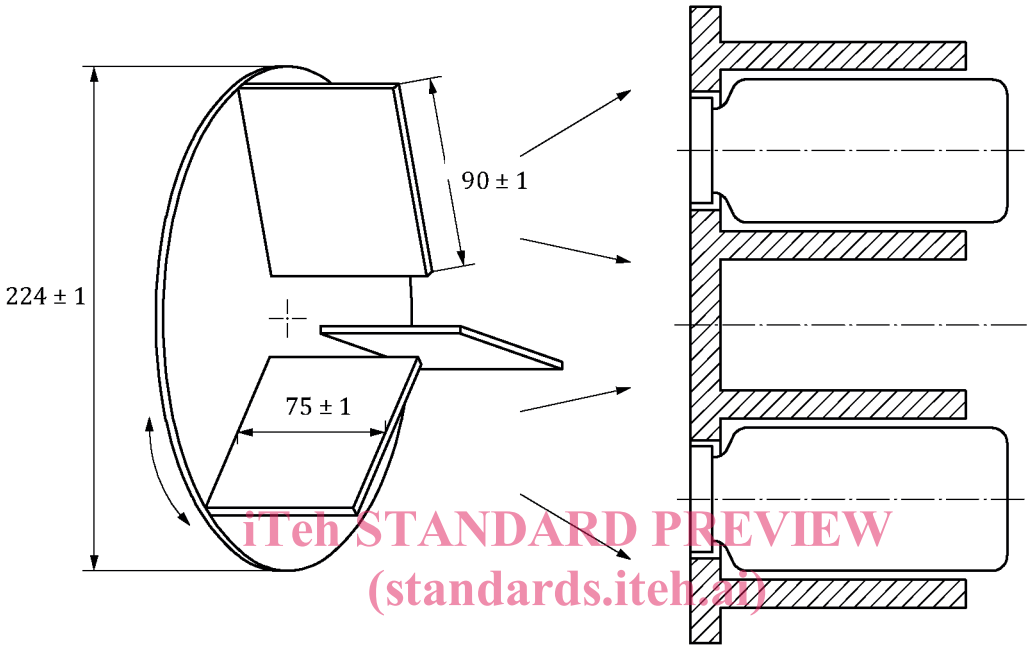

Figure 1 — General arrangement of test machine

5.3 Self-indicating silica gel desiccant, particle size 2 mm to 5 mm sieved to remove small particles and dust, and freshly regenerated by heating in a ventilated oven for at least 16 h at (125 ± 5) °C, then cooling to standard temperature in a hermetically sealed vessel. The granular size of the crystals shall be such that they shall not pass through a 2 mm sieve. The silica gel shall not be used if it is warmer than the test piece.

NOTE 1 Silica gel beads are preferred to granules as they generate less dust.

NOTE 2 Large volumes of silica gel will only cool slowly in a closed vessel. A long cooling time may be needed to ensure that all the silica gel has cooled to standard temperature.

5.4 Balance, weighing to 0,001 g.

5.5 Stop clock, reading to 1 min.

5.6 Vernier callipers, reading to 0,1 mm and capable of measuring the internal diameter of the necks of the containers.

5.7 Press knife, as specified in ISO 2419, capable of cutting circular test pieces of a suitable size to allow a good seal at the open end of the container (5.1).

5.8 Beeswax.

5.9 Abrasive paper, grade P180.