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**Leather — Physical and mechanical
tests — Determination of fogging
characteristics**

*Cuir — Essais physiques et mécaniques — Détermination des
caractéristiques de condensation*



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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 17071 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. It was published as EN 14288. It is based on DIN 75201 of Deutsches Institut für Normung and on IUP 46 published in *J. Soc. Leather Tech. Chem.*, 85 (7), p. 349, 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.

Leather — Physical and mechanical tests — Determination of fogging characteristics

1 Scope

This International Standard specifies two alternative methods for determining the fogging characteristics of leathers used in the passenger compartments of motor vehicles, namely Method A and Method B. These are two different test procedures to measure the volatile components and there is no mathematical correlation between the results obtained with Method A and those with Method B.

Method A determines by reflection the light scattering properties (or opaqueness) and the nature of the film or droplet formation from volatile components condensed on a cold glass surface. Method B measures gravimetrically the quantity of volatile components condensed on a cold aluminium foil surface. Annex A gives the results of inter-laboratory trial which show that Method B performs well, whereas Method A showed a large variation in the percentage reflection.

The test conditions allow the two tests to be carried out in succession.

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

3 Method A — Reflectometric method

3.1 Principle

A test piece is heated in a glass beaker, any volatile ingredients are condensed onto a cooled glass plate and the reflectometric value of the glass plate with condensed fog is expressed as a percentage of the reflectometric value of the same plate without fogging condensate. The measurement by light reflection depends on the nature of the film/droplet formation and needs careful interpretation. An example is that a thick but clear film can give a good test result when, in actual fact, it is a bad result in terms of volatiles. The test should be stopped if a transparent oily film is formed on the glass. The reflection measurement result is only valid when an even opaque film (like a fogged windscreen) formed by small droplets is present. (See Annex A.)