## INTERNATIONAL STANDARD

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# Leather — Physical and mechanical tests — Determination of cold crack temperature of surface coatings

Cuir — Essais physiques et mécaniques — Détermination de la température de fissuration à froid des revêtements de la surface



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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 25 % 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 17233 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 29 originally published in J. Soc. Leather Tech. Chem. 69, p. 85, 1985) and declared an official method of the IULTCS in 1987. This updated version was published in J. Soc. Leather Tech. Chem. 84, p. 369, (2000) and reconfirmed as an official method in March 2001. The same principle is used but the text has been updated and includes the number of test pieces to be taken.

### Leather — Physical and mechanical tests — Determination of cold crack temperature of surface coatings

### 1 Scope

This International Standard specifies a method for determining the cold crack temperature of surface coatings applied to leather. It is applicable to all leathers which have a surface coating and which can be easily flexed.

### 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

### 3 Principle

A strip of leather is held in a hinged apparatus in a cooled hamber at a given temperature. The hinged apparatus is closed rapidly causing the leather to be folded with the surface coating outwards. The leather is examined to determine if the surface coating has cracked.

### 4 Apparatus

- **4.1 Cooled chamber**, minimum height 500 mm and minimum width and depth 300 mm fitted with a rack or other support with circulating air capable of maintaining temperatures between 15 °C and -30 °C and of controlling the temperature to ±2 °C at any temperature within the range. The design of the chamber shall allow free circulation of air around the test piece and holder.
- 4.2 Temperature measuring device, readable to 1 °C and operating to at least-30 °C.
- **4.3 Hinged sample holder**, of the type and dimensions shown in Figure 1. All fixings on the inside shall be flush to the inner surface so as not to present any obstruction when the sample holder is closed.

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