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# Leather — Physical and mechanical tests — Determination of water absorption by capillary action (wicking)

*Cuir — Essais physiques et mécaniques — Détermination de l'absorption en eau par capillarité (mèche)*



Reference numbers
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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 (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).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information.

ISO 19074 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 co-operation between ISO and CEN (Vienna Agreement).

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 sampling and the testing of leather. ISO recognizes IULTCS as an International Standardising Body for the preparation of test methods for leather.

# Leather — Physical and mechanical tests — Determination of water absorption by capillary action (wicking)



## 1 Scope

This International Standard specifies a method for determining the rate of absorption of water by capillary action or wicking in leathers. It is applicable to all types of leather.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 3696, *Water for analytical laboratory use — Specification and test methods*

## 3 Principle

For the determination of wicking the absorption of water by capillary action, a strip of leather is partially immersed in water in a vertical position. After 120 min, the following parameters are measured:

a) wicking value as the maximum height reached by the water front on the strip of leather;

b) percentage increase of the weight of the test piece due to absorption of water.

## 4 Apparatus and materials

**4.1 250 ml beaker**, of low form or container ensuring the compliance with the conditions shown in Figure 2.

**4.2 A means of holding the top of the leather test piece**, so that the lower end can be immersed in the water.

**4.3 Balance,** with an accuracy less than 0,01 g.

**4.4 Ruler**, or other similar device, with an accuracy less than 0,5 mm.

**4.5 Metal mass**, of (10 ± 1) g.

**4.6 Press knife**, the inner wall of which is a rectangle (100 ± 2) mm × (25 ± 1) mm.

**4.7 Circular press knife**, with diameter approximately 2 mm.

**4.8 Distilled or deionised water**, conforming to the requirements of grade 3 of ISO 3696.