
Laminate floor coverings — Determination of abrasion resistance

*Revêtements de sol stratifiés — Détermination de la résistance à
l'abrasion*



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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.

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 (see www.iso.org/directives).

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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](#).

The committee responsible for this document is ISO/TC 219, *Floor coverings*.

This second edition cancels and replaces the first edition (ISO 24338:2006) of which has been technically revised.

Laminate floor coverings — Determination of abrasion resistance

1 Scope

This International Standard specifies two methods (A and B) for measuring abrasion of laminate floor covering elements. The tests described measure the ability of the surface layer to resist abrasive wear-through.

Abrasion, according to method A, is achieved by rotating a test specimen in contact with a pair of loaded cylindrical wheels covered with specified abrasive paper. The resistance to wear, according to method B, is evaluated by abrading the face of test pieces with a specified abrasive applied by means of two loaded wheels. The number of revolutions of the test specimen required to cause a defined degree of abrasion is measured by both methods.

NOTE The precision of the methods is not known. When inter-laboratory data become available, a precision statement will be added.

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 48, *Rubber, vulcanized or thermoplastic — Determination of hardness (hardness between 10 IRHD and 100 IRHD)*

ISO 868, *Plastics and ebonite — Determination of indentation hardness by means of a durometer (Shore hardness)*

ISO 6506-1, *Metallic materials — Brinell hardness test — Part 1: Test method*

ISO 7267-2, *Rubber-covered rollers — Determination of apparent hardness — Part 2: Shore-type durometer method*

ASTM D785, *Standard Test Method for Rockwell Hardness of Plastics and Electrical Insulating Materials*

3 Apparatus

3.1 Testing machine (for methods A and B) (see [Figure 1](#))

3.1.1 Test specimen holder (for methods A and B)

Disc-shaped holder with a diameter of approximately 105 mm (item 7 in [Figure 1](#)), which rotates in a horizontal plane with a permitted deviation of ± 2 mm/m at a frequency of (60 ± 2) rotations per minute and to which the test specimen (item 6 in [Figure 1](#)) can be clamped with a clamping screw (item 5 in [Figure 1](#)).

3.1.2 Holding and lifting device (for methods A and B)

Holding and lifting device for the abrasive wheels, so constructed that each wheel exerts a force of $(5,4 \pm 0,2)$ N (Method A) or $(10 \pm 0,2)$ N (Method B) on the test specimen.

For Method B, a counterweight of (150 ± 3) g is required to counterbalance the mass of the leather abrading wheel (see [3.2.3](#)). A second pair of leather abrading wheels may be used for this purpose.