

INTERNATIONAL STANDARD

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Textile floor coverings — Determination of thickness of pile above the substrate

*Revêtements de sol textiles — Détermination de l'épaisseur du velours
au-dessus du soubassement*



Reference number
ISO 1766:1999(E)

Foreword

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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.

International Standard ISO 1766 was prepared by Technical Committee ISO/TC 38, *Textiles*, Subcommittee SC 12, *Textile floor coverings*.

This third edition cancels and replaces the second edition (ISO 1766:1986) clauses 1 and 2 of which contain additional information.

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Textile floor coverings — Determination of thickness of pile above the substrate

1 Scope and field of application

This International Standard specifies a method for the determination of the thickness of pile above the substrate of a textile floor covering. It is applicable to all textile floor coverings with pile capable of being shorn from the substrate, but not to textile floor coverings of varying pile thickness or density, unless the areas can be measured separately.

The method is used in conjunction with ISO 8543, clause 8.

NOTE Difficulties have been experienced when using this method for bonded-pile textile floor coverings, textile floor coverings with needled-pile and flocked-pile textile floor coverings, because of the problems of determining a suitable end point when shearing these products. The results obtained from such products should therefore be treated with caution.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 139, *Textiles — Standard atmospheres for conditioning and testing*.

ISO 1765, *Machine-made textile floor coverings — Determination of thickness*.

ISO 1957, *Machine-made textile floor coverings — Procedure for sampling and cutting specimens for physical tests*.

ISO 8543, *Textile floor coverings — Methods for determination of mass*.

3 Terms and definitions

For the purposes of this International Standard, the following term and definition applies:

3.1 pile thickness

The difference in the thickness of the textile floor covering before and after the pile above the substrate has been shorn away, measured under a pressure of 2,0 kPa¹⁾

¹⁾ 1 kPa = 10³ N/m²

4 Principle

Pile thickness is determined by measuring the thickness of specimens under a pressure of 2,0 kPa before and after removal of the pile above the substrate.

5 Apparatus

5.1 Band-knife machine or hand-held clippers, capable of shearing the pile close to the substrate.

NOTE 1 The particulars of the shearing machine and details of its operation should be agreed between the interested parties.

NOTE 2 The results from the two types of apparatus may not be identical.

5.2 Thickness tester, capable of measuring thickness under a pressure of 2,0 kPa (see ISO 1765).

5.3 Straightedge, for example a ruler, for brushing the surface of the specimen.

6 Atmosphere for conditioning and testing

The specimens shall be conditioned and the test conducted in one of the standard atmospheres for conditioning and testing defined in ISO 139.

7 Specimens

7.1 Sampling

Select the specimens according to the standard procedure specified in ISO 1957.

7.2 Number and area

Cut four specimens, each at least 200 × 200 mm, with the sides parallel with, and at right angles to, the direction of manufacture.

7.3 Preparation

Lightly brush the use-surface, first against, then with, the direction of pile lean, using the straightedge.

Lay the specimens out flat, singly and with use-surface uppermost, in the appropriate standard atmosphere for testing textiles as defined in ISO 139, for a period of at least 24 h.

8 Procedure

8.1 Measure the thickness of each specimen at five approximately equally spaced places (the use of templates is recommended for locating measurements), each at least 20 mm from the edges of the specimen, under the standard pressure of 2,0 kPa, using the method specified in ISO 1765.

8.2 Shear the pile from the specimen, as described in ISO 8543, clause 8.

8.3 Measure the thickness of each shorn specimen as specified in 8.1, avoiding damaged areas.

9 Expression of result

9.1 For each specimen, calculate the mean thickness unshorn and the mean thickness shorn. For each specimen, calculate the thickness of pile as the difference between these figures, in millimetres, to the nearest 0,1 mm.

9.2 Calculate the mean pile thickness for all specimens, in millimetres, to the nearest 0,1 mm.

10 Test report

The test report shall include the following particulars:

- a) that the procedure was conducted in accordance with this International Standard;
- b) the identity (source and type) of the sample from which the specimens were taken;
- c) the standard atmosphere used for conditioning and testing;
- d) the thickness unshorn, the thickness shorn, and the pile thickness, for each specimen, in millimetres to the nearest 0,1 mm;
- e) the average thickness unshorn, the average thickness shorn, and the average pile thickness, in millimetres, to the nearest 0,1 mm;
- f) the type of shearing apparatus used.

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