INTERNATIONAL STANDARD 1765

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Machine-made textile floor coverings — Determination of thickness

Revêtements de sol textiles fabriqués à la machine — Détermination de l'épaisseur totale

First edition — 1975-11-01

UDC 645.12 : 620.1

Ref. No. ISO 1765-1975 (E)

Descriptors : textiles, floor coverings, dimensional measurement, thickness.

Price based on 2 pages

FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up 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.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

Prior to 1972, the results of the work of the Technical Committees were published as ISO Recommendations; these documents are now in the process of being transformed into International Standards. As part of this process, International Standard ISO 1765 replaces ISO Recommendation R 1765-1971 drawn up by Technical Committee ISO/TC 38, *Textiles.*

The Member Bodies of the following countries approved the Recommendation:

Australia	India	Romania
Austria	Iran	South Africa, Rep. of
Belgium	Israel	Spain
Brazil	Italy	Sweden
Canada	Japan	Switzerland
Denmark	Netherlands	Turkey
Egypt, Arab Rep. of	New Zealand	United Kingdom
France	Norway	U.S.A.
Germany	Peru	U.S.S.R.
Greece	Poland	
Hungary	Portugal	

No Member Body expressed disapproval of the Recommendation.

Printed in Switzerland

Machine-made textile floor coverings — Determination of thickness

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies a basic method for the determination of the thickness of machine-made textile floor coverings. Where areas of different thickness or construction exist, these should be tested separately if possible.

This method forms an integral part of other methods of test for textile floor coverings and the result of this test by itself cannot be used as an indication of the quality of the product.

The method is applicable to all machine-made textile floor coverings.

2 REFERENCES

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

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

3 DEFINITION

For the purposes of this International Standard the following definition applies :

thickness (of machine-made textile floor coverings) : The distance between a reference plate on which the specimen rests and a parallel presser-foot applying a given pressure to the specimen. Ordinarily the thickness of a machine-made textile floor covering without compression is measured at the standard pressure of 2,0 kPa* applied to a circle of area between 300 and 1 000 mm^2 within a larger area.

4 PRINCIPLE

The thickness of a specimen of machine-made textile floor covering is measured as the distance between the reference plate on which the specimen rests and a parallel circular presser-foot exerting a specified pressure on an area of defined size within a larger area of the machine-made textile floor covering. Textile floor coverings without pile, made of consolidated materials, are tested using a guard ring.

5 APPARATUS

5.1 Instrument for measuring the thickness, having a circular plane presser-foot of area between 300 and 1 000 mm^2. It shall be capable of exerting a pressure normal to the plane of the specimen of 2,0 ± 0,2 kPa and shall have a means of measuring thickness with an accuracy of 0,1 mm over a range of 25 mm. The movement of the presser-foot shall be normal to the plane of the textile floor covering. The reference plate on which the specimen rests shall be plane, at least 125 mm × 125 mm in size, and parallel to the presser-foot to within 1 part in 500.

5.2 Circular guard ring, mass 1 000 g, external diameter not greater than 125 mm and internal diameter of $d + 40$ mm, d being the diameter of the presser-foot, such that a pressure of at least 1 kPa is exerted. A throat of 40 mm width may be cut from the guard ring.

NOTE — This is required only for testing products without pile, made from consolidated materials.

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 of textiles specified in ISO 139.

7 TEST SPECIMENS

7.1 Sampling

Select the specimens according to the directions in ISO 1957.

* 1 kPa = 10^3 N/m^2

7.2 Number of specimens, dimensions and location of test

7.2.1 *Textile floor coverings without pile, made of consolidated materials*

Prepare sufficient specimens to allow at least ten tests to be made. Test specimens shall be at least 125 mm × 125 mm, but they may be of any larger dimensions as required by other tests, or several measurements may be made on one larger sample provided that the centres of the areas in contact with the presser-foot are not less than 75 mm apart. Ensure that the area tested has not been previously compressed by a guard ring, and that it is well away from distorted parts of the sample.

7.2.2 *Textile floor coverings other than those covered by 7.2.1*

Prepare sufficient specimens to allow at least five tests to be made. Test specimens shall be at least 75 mm × 75 mm, but they may be of any larger dimensions as required by other tests, or several measurements may be made on one larger sample provided that the centres of the areas in contact with the presser-foot are not less than 75 mm apart. Select these specimens well away from distorted parts of the sample.

8 PREPARATION OF TEST SPECIMENS

Lay out the specimens flat, singly, and with the use-surface uppermost, in the chosen standard atmosphere for conditioning and testing textiles for a period of at least 24 h.

9 PROCEDURE

9.1 Check that the presser-foot shaft moves freely. With the presser-foot and base plate in contact, set the gauge to read zero, or alternatively obtain the zero reading for the base plate.

9.2 Place the specimen, use-surface uppermost, on the base plate so that no part of the presser-foot is within 20 mm of the edge of the specimen and so that the specimen cannot move. When testing textile floor coverings without pile, made of consolidated materials, use a guard ring as specified in 5.2. (When a textile floor covering of more than one thickness level or pile construction is being tested, no part of the presser-foot shall be within 20 mm of a change of construction.)

9.3 Lower the presser-foot gently onto the specimen and note the gauge reading after 30 s.

9.4 Test in this way at least ten specimens of textile floor coverings without pile, made of consolidated materials, and at least five specimens of other types of textile floor coverings.

10 CALCULATION AND EXPRESSION OF RESULTS

Measure and record, for each specimen, the thickness to the nearest 0,1 mm, at a pressure of 2,0 kPa, and calculate the arithmetic mean value of these measurements to the nearest 0,1 mm. When a textile floor covering of more than one thickness level or pile construction has been tested, calculate the result for each level separately.

11 TEST REPORT

The test report shall include the following particulars :

a) a statement that the test was conducted in accordance with this International Standard, and which of the alternative requirements have been met;

b) the standard atmosphere used (temperate or tropical);

c) the individual thickness measurements and the mean thickness of the test specimens to the nearest 0,1 mm, at a pressure of 2,0 kPa. When a textile floor covering of more than one thickness level or pile construction has been tested, report the results for each level separately.