

INTERNATIONAL STANDARD



3416

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

1F req^a TC file

Textile floor coverings — Determination of thickness loss after prolonged, heavy static loading

Revêtements de sol textiles — Détermination de la perte en épaisseur après application prolongée d'une charge statique élevée

First edition — 1975-05-15

UDC 645.12 : 620.16

Ref. No. ISO 3416-1975 (E)

Descriptors : textiles, floor coverings, textile coatings, tests, compression tests, thickness, measurement.

Price based on 3 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.

International Standard ISO 3416 was drawn up by Technical Committee ISO/TC 38, *Textiles*, and circulated to the Member Bodies in May 1974.

It has been approved by the Member Bodies of the following countries :

Australia	Hungary	South Africa, Rep. of
Austria	India	Sweden
Belgium	Iran	Thailand
Canada	Ireland	Turkey
Chile	Israel	United Kingdom
Czechoslovakia	Italy	U.S.A.
Denmark	Japan	U.S.S.R.
Finland	Netherlands	Yugoslavia
France	Poland	
Germany	Romania	

No Member Body expressed disapproval of the document.

Textile floor coverings — Determination of thickness loss after prolonged, heavy static loading

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies a method for determination of thickness loss of textile floor coverings after prolonged, heavy static loading. It is applicable to all textile floor coverings of uniform thickness and construction. It does not apply to other textile floor coverings unless the areas of different thickness or construction can be separately tested.

NOTE — A method for determination of thickness loss of textile floor coverings after brief, moderate static loading is given separately in ISO 3415.

2 REFERENCES

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

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

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

3 PRINCIPLE

Subjection of a test specimen to a prolonged, heavy static loading treatment, the thickness being measured before loading and after various recovery periods.

4 APPARATUS

4.1 Thickness tester, with presser foot of area between 300 and 1 000 mm² and capable of measuring thickness to an accuracy of 0,1 mm at the standard pressure of $2\,000 \pm 200$ Pa as defined in ISO 1765.

4.2 Five alloy specimen plates, each measuring 100 mm X 100 mm and approximately 6 mm thick.

4.3 Static loading machine, capable of applying a pressure of 700 kPa through a circular presser foot of radius at least 2 mm larger than the radius of the presser foot of the thickness tester, and which is constrained to move vertically. A suitable apparatus is described in the annex.

4.4 Double-sided adhesive tape.

5 ATMOSPHERE FOR CONDITIONING AND TESTING

The specimens shall be conditioned and all measurements made in the standard atmosphere for conditioning and testing textiles specified in ISO 139.

Preconditioning in a dry atmosphere before conditioning in the standard atmosphere for testing is not required.

6 TEST SPECIMENS

Cut out at least five specimens, each measuring 100 mm X 100 mm, following the sampling procedure specified in ISO 1957.

7 PREPARATION OF TEST SPECIMENS

7.1 Cover one side of a specimen plate (4.2) with double-sided adhesive tape, pressing down firmly to ensure adhesion. Remove any backing paper and measure to the nearest 0,1 mm the combined thickness (t_1) of plate plus tape at the standard pressure.

7.2 Mount a test specimen, use-surface uppermost, on the prepared specimen plate, pressing down sufficiently to ensure adhesion.

7.3 Allow the mounted test specimens to condition in the standard atmosphere for testing textiles, flat, singly and use-surface uppermost, for at least 24 h.

NOTE — In the subsequent procedure, always handle specimens by the edge of the mounting plates.

8 PROCEDURE

8.1 General

Conduct the test in the standard atmosphere for testing textiles. Make all determinations of thickness to the nearest 0,1 mm.

8.2 Measurement of initial thickness

Measure the thickness of the conditioned and mounted specimen at the standard pressure (see 4.1) in the centre to obtain the total thickness (t_2) of test specimen, tape and plate.