

SLOVENSKI STANDARD oSIST prEN ISO 10833:2018

01-december-2018

Tekstilne talne obloge - Ugotavljanje odpornosti rezanih robov proti poškodbam z modificiranim bobnastim preskusom po Vettermannu (ISO 10833:2017)

Textile floor coverings - Determination of resistance to damage at cut edges using the modified Vettermann drum test (ISO 10833:2017)

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Revêtements de sol textiles - Détermination de la résistance des joints par l'essai au tambour Vettermann modifié (ISO 10833:2017)

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Ta slovenski standard je istoveten z: prEN ISO 10833

ICS:

97.150 Talne obloge Floor coverings

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INTERNATIONAL STANDARD

ISO 10833

Third edition 2017-05

Textile floor coverings — Determination of resistance to damage at cut edges using the modified Vettermann drum test

Revêtements de sol textiles — Détermination de la résistance des joints par l'essai au tambour Vettermann modifié

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Reference number ISO 10833:2017(E)

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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).

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).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

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

This third edition cancels and replaces the second edition (ISO 10833:2001), which has been technically revised. https://standards.iteh.ai/catalog/standards/sist/dof814b9-3705-491e-9dc3-

The main changes compared to the previous edition are as follows:

- the preparation (including the cutting) of the specimen in the case of sheet material have been updated;
- the assessment and evaluation of the fraying resistance characteristic have been updated.

Textile floor coverings — Determination of resistance to damage at cut edges using the modified Vettermann drum test

1 Scope

This document specifies a method to determine the susceptibility of textile floor coverings to mechanical damage at cut edges.

It is applicable to all textile floor coverings both as sheet materials and as tiles.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 139, Textiles — Standard atmospheres for conditioning and testing

ISO 1957, Machine-made textile floor coverings — Selection and cutting of specimens for physical tests

ISO 2424, Textile floor coverings — Vocabulary

ISO 9405, Textile floor coverings — Assessment of changes in appearance

ISO 10361:2015, Textile floor coverings — Production of changes in appearance by means of Vettermann drum and hexapod tumbler tester

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 2424 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

3.1

delamination

separation of the use-surface and/or foundation/primary substrate of a textile floor covering from the secondary backing

3.2

fraying

damage or loss of pile or substrate material of a textile floor covering from a cut edge

3.3

tufting out

loss of tufts from the use-surface of a textile floor covering

3.4

sprouting

release and appearance during use of extra-long tuft legs, which were accidentally trapped within the pile of a textile floor covering during manufacture

3.5 laddering shooting

loss of consecutive loops of the same column from the use-surface of a textile floor covering

4 Principle

A steel ball with six rubber studs rolls freely inside a rotating drum which is lined with the textile floor covering specimens.

On sheet materials, a cut is made along the length of the specimens in a groove such that the cut edges are stressed in the test.

Tiles are put together so that the original edges of the tiles form the joint which is stressed in the test.

After the test, the appearance of the fatigued cut edges is assessed.

5 Apparatus

Equivalent products may be used if they can be shown to lead to the same results.

5.1 Vettermann-drum tester, conforming to ISO 10361:2015, 5.1.1, including a vacuum cleaner with an air change rate at the nozzle of minimum 25 l/s, as described in Figure 1.

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Dimensions in millimetres

Key

- 1 extraction of brushed fibres
- 2 metal drum
- 3 rubber stud

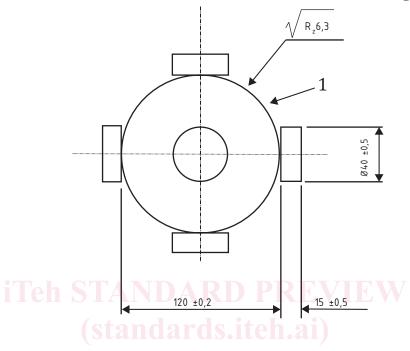
- 4 fixing plate in vulcanised fibre
- 5 steel ball (see Figure 2)

Figure 1 — Vettermann drum tester

5.2 Steel ball, (see Figure 2) shall be fitted with six cylindrical rubber studs, which are equally spaced from each other on the surface of the ball.

The mass of the ball without rubber studs shall be $(7\ 000 \pm 100)$ g. The diameter of the ball shall be (120 ± 0.2) mm.

Dimensions in millimetres



Key

1 steel ball

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https://standards.iteh.ai/ **Figure 2 — Design of steel ball** 1705-491e-9dc3-004e904f4cf9/sist-en-iso-10833-2019

- **5.3 Rubber studs**, conforming to ISO 10361:2015, 5.1.2 which are replaced before each test.
- **5.4 External vacuum cleaner**, of the upright type with a rotating brush.
- **5.5 Fixation tape (single-sided adhesive tape)**, for the fixation of carpet skirtings; recommended width of the tape is 50 mm.
- **5.6 Double sided adhesive tape**, as commonly used for textile floor coverings; recommended width of the tape is 50 mm.
- **5.7 Knife**, for cutting flat woven textile floor coverings, e.g. a carpet cutter.
- 6 Sampling and preparation of specimens
- 6.1 Sampling
- 6.1.1 General

Sampling shall be carried out in accordance with ISO 1957.

6.1.2 Sheet materials

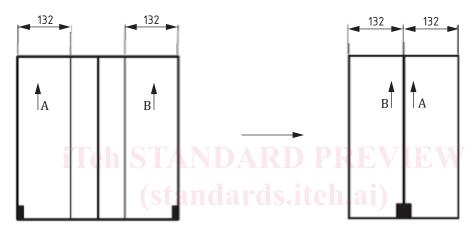
Take four test specimens approximately 570 mm long (in the direction of manufacture) and approximately 265 mm wide. The longitudinal edge of the specimens shall be parallel to the direction of manufacture.

6.1.3 Tiles

Take at least four tiles of dimensions 500 mm by 500 mm or of lesser dimensions, but not smaller than 265 mm by 265 mm.

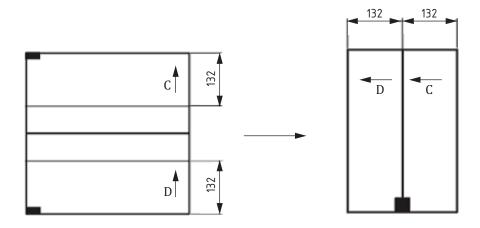
Before cutting, mark the corners of the tiles and the direction of manufacture on the back of the specimen as shown in Figure 3.

Dimensions in millimetres



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a) Direction of manufacture

b) Crosswise direction

Key

A, B, C, D specimen label

→ direction of manufacture

 $Figure \ 3-Specimen\ preparation\ by\ cutting\ of\ tiles$