

## SLOVENSKI STANDARD oSIST prEN 1269:2023

01-julij-2023

### Tekstilne talne obloge - Ocenitev impregnacij iglanih talnih oblog s preskusom zamazanja

Textile floor coverings - Assessment of impregnations in needled floor coverings by means of a soiling test

Textile Bodenbeläge - Beurteilung von Ausrüstungsmitteln in Nadelvliesbelägen durch die Anschmutzneigung

Revêtements de sol textiles - Evaluation de l'imprégnation des revêtements de sol aiguilletés au moyen d'un essai d'encrassement

Ta slovenski standard je istoveten z: prEN 1269

ICS:

97.150 Talne obloge Floor coverings

oSIST prEN 1269:2023 en,fr,de

**oSIST prEN 1269:2023** 

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### EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

## DRAFT prEN 1269

May 2023

**ICS** 

Will supersede EN 1269:2019

#### **English Version**

### Textile floor coverings - Assessment of impregnations in needled floor coverings by means of a soiling test

Revêtements de sol textiles - Évaluation des imprégnations des revêtements de sol aiguilletés au moyen d'un essai d'encrassement Textile Bodenbeläge - Beurteilung von Ausrüstungsmitteln in Nadelvliesbelägen durch die Anschmutzneigung

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 134.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

This draft European Standard was established by CEN in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

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#### **European foreword**

This document (prEN 1269:2023) has been prepared by Technical Committee CEN/TC 134 "Resilient, textile and laminate floor coverings", the secretariat of which is held by NBN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 1269:2019.

The main changes compared to the previous edition are listed below:

- change to Clause 5.3.1 (AATCC standard soil is taken out);
- Change to Clause 5.2 (Method B is taken out because the Tetrapod standards ISO/TR 6131 and ASTM D5251-05 are withdrawn);
- slight change of composition and colourimetric characteristics tolerances for the standard soil.

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#### 1 Scope

This document specifies a method for the evaluation of impregnations or other treatments in needled floor coverings by means of a soiling test.

#### 2 Normative references

The following documents are referred to in the text in such a way that some or all 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.

EN ISO 139, Textiles - Standard atmospheres for conditioning and testing (ISO 139)

EN ISO 9405:2017, Textile floor coverings - Assessment of changes in appearance (ISO 9405:2015)

ISO 105-A02, Textiles — Tests for colour fastness — Part A02: Grey scale for assessing change in colour

ISO 565, Test sieves — Metal wire cloth, perforated metal plate and electroformed sheet — Nominal sizes of openings

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

ISO 4918, Resilient, textile and laminate floor coverings — Castor chair test

#### 3 Terms and definitions

No terms and definitions are listed in this document.

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

- IEC Electropedia: available at <a href="https://www.electropedia.org/">https://www.electropedia.org/</a>
- ISO Online browsing platform: available at <a href="https://www.iso.org/obp">https://www.iso.org/obp</a>

#### 4 Principle

In this test a fixed quantity of standard artificial soil is scattered over the surface of the specimens which is subjected to the rolling action of castors for a specified time. After vacuum cleaning, the degree of colour change is assessed by comparing the contrast between treated and untreated test specimens with the contrast of the grey scale.

#### 5 Apparatus

#### 5.1 Castor chair apparatus

As described in ISO 4918 using a modified load of 60 daN.

#### 5.2 Soil distributor

The soil distributor uses two sieves (see Figure 1), one inside and resting on the other to distribute the soil evenly on the part of the circular specimen that is subjected to the wear action of the castors. The whole distributor is placed vertically above the specimen with the sieves in the horizontal position.

The soil is placed in the inner sieve which is vibrated relative to the larger outer sieve thereby achieving even distribution of the soil on the specimen below the two sieves.

The mesh size of both sieves is 0,5 mm (module 31 of ISO 565). The base of each sieve (each of which has walls) is in the shape of a regular trapezium in order to correspond to a sector of the treated area of the test specimen.

The outer (lower) sieve has following base dimensions:

- distance between the parallel sides: 220 mm;
- length of the parallel sides: 100 mm, 45 mm.

Its underside is 40 mm above the specimen.

The dimensions of the inner (upper) sieve are not specified but shall be smaller than the base sieve to permit movement relative to the lower sieve.



a) Both sieves mounted

b) Top view, assembled sieves

Figure 1 — Soil distributor

#### 5.3 Equipment

#### 5.3.1 Standard soil

The standard soil shall have the following composition (% by mass):

Alumina black: 60,65 %;

Alumina orange: 29,45 %;

— Quartz dust: 7,5 %;

Orange ferrous oxide: 0,2 %;

Black ferrous oxide: 0,4 %;

Paraffin oil: 1,80 %;

The CEN standard soil shall have following colourimetric characteristics:

- L: (48 ± 3,0);
- a:  $(3.8 \pm 0.5)$ ;
- b:  $(9,5 \pm 2,0)$ .

The proportions of the material of this standard soil can be adjusted to match the required colourimetric characteristics (L, a, b).

Since the colourimetric characteristics of the standard soil change with time and exposure to light, the soil shall be kept in the dark and its colourimetric characteristics (L, a, b) shall be checked every 6 months against the specified tolerances.

NOTE The above defined standard soil can be purchased at TFI Aachen GmbH, Charlottenburger Allee 41, 52068 Aachen, sales@tfi-aachen.de.

#### 5.3.2 Vacuum cleaner

A household type apparatus shall be used, equipped with a smooth, approximately 2 500 mm<sup>2</sup> section nozzle having the following characteristics:

- partial vacuum = (1 900 ± 190) mm water column;
- air flow rate =  $(30 \pm 3) l/s$ .

#### 5.3.3 A set of large dimension grey scales, including half degrees

A set of large dimension grey scales including half degrees, in accordance with ISO 105-A02.

#### 5.3.4 Observation device

An observation device as defined in EN ISO 9405.

#### 6 Sampling and preparation of the specimens

#### 6.1 Sampling and selection of the specimens

Take a representative sample of four different coloured samples from the commercial range of the floor covering in accordance with the methods given in ISO 1957.

#### **6.2 Preparation of the specimens**

From each sample to be examined, cut two test specimens in the shape of a quadrant having a radius of 350 mm. The edges of the quadrant are cut parallel with and at right angles to the direction of manufacture. One of the two specimens is kept as a reference specimen for the evaluation. Mark the two specimens with an arrow on the back (e.g. the direction of production) to permit alignment in the same direction for assessment.

The quadrants are fixed onto the support (dimensionally stable flat plastic disk) using two strips of double-sided adhesive tape laid overlapping the joints.

In the case of self-adhesive tiles, place them on the support without any additional adhesive.

#### 7 Conditioning

Condition the test specimens in the standard atmosphere specified in EN ISO 139 for at least 24 h.

#### 8 Procedure

- a) Clean the specimens using the vacuum cleaner (5.3.2) before placing them onto the castor chair apparatus. Place the soil distributor above the specimen.
- b) Weigh out 2,5 g of standard soil (5.3.1); rotate the support plate of the apparatus without lowering the castor device. Carefully put the standard soil into the inner sieve by means of a spatula so that it is evenly distributed over the whole surface of the sieve.
- c) Vibrate the sieve to spread the soil evenly over the whole surface of the specimen.
- d) Lower the castor apparatus with a total loading of 60 kg until it rests on the support, and then rotate the plate 100 cycles without reversal to spread the soil and make it penetrate.
- e) Raise the castors and remove the specimen support from the apparatus.
- f) Clean the specimen with the vacuum cleaner (5.3.2) using a forwards and backwards motion for five seconds in each direction. Repeat this 10 times. Examine the treated specimen, and if the soil is not distributed evenly on the specimen, repeat the test with a new specimen.
- g) On the same specimens, a second soil treatment shall be applied. Repeat all of the operation b) to f) by using the opposite direction of rotation in d).
- h) Remove the specimens from the support and assess the colour change grade using the large grey scale (5.3.3) according to EN ISO 9405:2017, 7.3. 9:2023 https://standards.iteh.ai/catalog/standards/sist/1ce92755-b311-4f16-9537-

#### 9 Expression of results 694e927669/osist-pren-1269-2023

Record the colour change grade of each specimen, i.e. the contrast between the tested specimen and the reference specimen (6.2), using the grey scale (5.3.3) according to EN ISO 9405.

Express the result by the worst assessment grade obtained from the different coloured specimens.

#### 10 Test report

The test report shall contain the following information:

- a) a reference to this document i.e. prEN 1269:2023;
- b) the complete identification of the product tested, including type, source, colour, and manufacturer's reference numbers;
- c) date the test was completed;
- d) the atmosphere used for conditioning and testing;
- e) the number of specimens tested;
- f) the number of colourways tested;
- g) the used method (method A or B);

- h) the colour change grade of each specimen of each colourway;
- i) the result of the test according to Clause 9;
- j) any relevant observations;
- k) any operations or conditions not specified in this document, which might have affected the results.

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