

## SLOVENSKI STANDARD oSIST prEN 12199:2019

01-julij-2019

### Netekstilne talne obloge - Specifikacija homogenih in heterogenih reliefnih gumenih talnih oblog

Resilient floor coverings - Specifications for homogeneous and heterogeneous relief rubber floor coverings

Elastische Bodenbeläge - Spezifikation für homogene und heterogene profilierte Elastomer-Bodenbeläge

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ICS:

97.150 Talne obloge Floor coverings

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### EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

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#### **English Version**

### Resilient floor coverings - Specifications for homogeneous and heterogeneous relief rubber floor coverings

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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#### prEN 12199:2019 (E)

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prEN 12199:2019 (E)

#### **European foreword**

This document (prEN 12199:2019) has been prepared by Technical Committee CEN/TC 134 "Resilient, textile and laminate coverings", the secretariat of which is held by NBN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 12199:2010.

In comparison with the previous edition, the following technical modifications have been made:

— references to standards in Table 1, Table 2 and Annex A.

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#### 1 Scope

This document specifies the characteristics of homogeneous and heterogeneous relief or studded rubber floor coverings, supplied in either tile or roll form.

This document includes a classification system based on intensity of use, which shows where these resilient floor coverings will give satisfactory service (see EN ISO 10874). It also specifies requirements for marking.

#### 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.

EN 12466, Resilient floor coverings - Vocabulary

EN ISO 105-B02, Textiles — Tests for colour fastness — Part B02: Colour fastness to artificial light: Xenon arc fading lamp test (ISO 105-B02)

EN ISO 10874, Resilient, textile and laminate floor coverings — Classification (ISO 10874)

EN ISO 23999, Resilient floor coverings — Determination of dimensional stability and curling after exposure to heat (ISO 23999)

EN ISO 24340, Resilient floor coverings — Determination of the thickness of layers (ISO 24340)

EN ISO 24341, Resilient and textile floor coverings — Determination of length, width and straightness of sheet (ISO 24341)

EN ISO 24342, Resilient and textile floor coverings — Determination of side length, edge straightness and squareness of tiles (ISO 24342)

EN ISO 24343-1, Resilient and laminate floor coverings — Determination of indentation and residual indentation — Part 1: Residual Indentation (ISO 24343-1)

EN ISO 24344, Resilient floor coverings — Determination of flexibility and deflection (ISO 24344)

EN ISO 24346, Resilient floor coverings — Determination of overall thickness (ISO 24346)

ISO 34-1, Rubber, vulcanized or thermoplastic — Determination of tear strength — Part 1: Trouser, angle and crescent test pieces

ISO 48-4, Rubber, vulcanized or thermoplastic — Determination of hardness — Part 4: Indentation hardness by durometer method (Shore hardness)

ISO 4649, Rubber, vulcanized or thermoplastic — Determination of abrasion resistance using a rotating cylindrical drum device

#### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12466 and the following apply. ISO and IEC maintain terminological databases for use in standardization at the following addresses:

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

#### 3.1

#### homogeneous rubber floor covering

floor covering based on natural or synthetic rubber with one or more layers of the same composition and colour, patterned throughout its thickness

#### 3.2

#### heterogeneous rubber floor covering

floor covering based on natural or synthetic rubber consisting of a wear layer and other compact layers which differ in composition and/or design and can contain a reinforcement

#### 4 General requirements

All homogeneous and heterogeneous relief rubber floor coverings shall conform to the appropriate general requirements specified in Table 1, when tested in accordance with the test methods given therein.

Table 1 — General requirements

Property	Requirements	Test method			
Thickness	see Table 2	EN ISO 24346			
Roll form: length width  Teh STA	not less than the stated nominal values	EN ISO 24341			
Tiles: side length squareness and straightness for side of length: ≤ 610 mm ps://standards.iteh.ai/ > 610 mm	tolerance allowed: ± 0,15 % of nominal length tolerance allowed: ± 0,25 mm tolerance allowed: ± 0,35 mm atalog/standards/sist/685b77ff-5360dd6a/sist-en-12199-2020	EN ISO 24342			
Dimensional stability	tolerance allowed ± 0,4 %	EN ISO 23999			
Tear strength	average value ≥ 20 N/mm	ISO 34-1:2015, Method B, Procedure A			
Flexibility: diameter of mandrel 20 mm	no cracking	EN ISO 24344, Method A			
Hardness	≥ 70 Shore A	ISO 48-4			
Residual indentation (after static loading): nominal thickness: < 3,0 mm ≥ 3,0 mm	average value ≤ 0,20 mm average value ≤ 0,25 mm	EN ISO 24343-1			
Abrasion resistance	≤ 250 mm <sup>3</sup>	ISO 4649:2017, Method A, vertical load (5 ± 0,1) N			
Colour fastness to artificial light <sup>a</sup>	6 minimum on blue wool scale ≥ 3 on grey scale	EN ISO 105-B02:2014, Method 3			

<sup>&</sup>lt;sup>a</sup> Expose a full size test specimen. Store a further test specimen in the dark, which will constitute the reference standard for assessment of colour change.

#### 5 Classification requirements

Homogeneous and heterogeneous relief rubber floor coverings shall be classified in accordance with the requirements for overall thickness and the wear layer thickness specified in Table 2, when tested in accordance with the test methods given therein.

Table 2 — Classification requirements

Class (see EN ISO 10874)	Level of use	Minimum overall thickness <sup>a</sup> (homogeneous and heterogeneous) EN ISO 24346 mm	Minimum thickness of wear layer <sup>b</sup> (heterogeneous) EN ISO 24340 mm
21	domestic moderate	2,5	1,0
22	domestic general/medium	2,5	1,0
22+	domestic general	2,5	1,0
23	domestic heavy	2,5	1,0
31	commercial moderate	2,5	1,0
32	commercial general	2,5	1,0
33	commercial heavy	3,5teh.ai)	1,0
34	commercial very heavy	3,5	1,0
41	light industrial moderate	2,5	1,0
42	light industrial general d6a/sist-	- <b>3,5</b> 2199-2020	1,0
43	light industrial heavy	3,5	1,0

 $<sup>^{</sup>a}$  The average overall thickness shall have a tolerance of  $\pm$  0,20 mm and no individual result shall exceed 0,25 mm from the nominal.

#### 6 Marking

The floor coverings described in this standard and/or their packaging shall bear the following marking:

- a) reference to this document, i.e. EN 12199:—;
- b) manufacturer's or supplier's identification;
- c) product name;
- d) colour/pattern, and batch and roll number if applicable;
- e) class/symbol, as specified in EN ISO 10874;
- f) the dimensions for tiles;
- g) the covered area for rolls.

 $<sup>^{\</sup>rm b}$  The average thickness of the wear layer shall have a tolerance of  $\pm$  0,15 mm and no individual result shall exceed 0,20 mm from the nominal.

### **Annex A** (informative)

#### **Optional properties**

The following properties are considered important for some specific uses:

- electrical resistance (EN 1081);
- electrostatic propensity (EN 1815);
- effect of stains (EN ISO 26987);
- effect of castor chair (EN 425);
- effect of simulated movement of a furniture leg (EN 424);
- cigarette resistance (EN 1399).

In general use, a rubber floor covering, depending on the colour and/or pattern, is expected to have the following rating when tested in accordance with EN 1399:1997/C1:1998:

- Method A, stubbed cigarettes; rating 4 or higher;
- Method B, burning cigarettes; rating 3 or higher.

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#### **Bibliography**

- [1] EN 424, Resilient floor coverings Determination of the effect of simulated movement of a furniture leg
- [2] EN 425, Resilient and laminate floor coverings Castor chair test
- [3] EN 1081, Resilient, laminate and modular multilayer floor covering Determination of the electrical resistance
- [4] EN 1399:1997/C1:1998, Resilient floor coverings Determination of resistance to stubbed and burning cigarettes
- [5] EN 1815, Resilient and laminate floor coverings Assessment of static electrical propensity
- [6] EN ISO 26987, Resilient floor coverings Determination of staining and the resistance to chemicals (ISO 26987)

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