SLOVENSKI STANDARD
SIST EN 14215:2018

01-december-2018

Nadomešča:
SIST EN 14215:2013

Tekstilne talne obloge - Razvrščanje strojno obdelanih preprog in tekačev

Textile floor coverings - Classification of machine-made rugs and runners

Textile Bodenbeläge - Einstufung von maschinengefertigten abgepassten Polteppichen und Läufern

Revêtements de sol textiles - Classification des carpettes et passages à velours manufacturés

Ta slovenski standard je istoveten z: EN 14215:2018

ICS:

97.150	Talne obloge	Floor coverings

SIST EN 14215:2018 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 14215

October 2018

ICS 97.150

Supersedes EN 14215:2013

English Version

Textile floor coverings - Classification of machine-made rugs and runners

Revêtements de sol textiles - Classification des carpettes et passages à velours manufacturés

Textile Bodenbeläge - Klassifizierung von maschinengefertigten Teppichen und Läufern

This European Standard was approved by CEN on 17 June 2018.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN 14215:2018 E

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European foreword

This document (EN 14215:2018) has been prepared by Technical Committee CEN/TC 134 “Resilient, textile and laminate floor coverings”, the secretariat of which is held by NBN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2019, and conflicting national standards shall be withdrawn at the latest by April 2019.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 14215:2013.

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

— the title has been corrected removing the word 'pile';

— 3 normative references have been updated.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard specifies requirements for machine-made (woven, tufted, knitted, needled, flocked, bonded, hand-tufted) rugs and runners, including a classification according to use intensity and luxury.

This European Standard is not applicable to hand-knotted rugs, to barrier mats or to bathroom rugs.

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 985, *Textile floor coverings — Castor chair test*

EN 14159, *Textile floor coverings — Requirements for tolerances on (linear) dimensions of rugs, runners, carpet tiles and wall-to-wall carpet and for tolerances on pattern repeat*

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 105-E01, *Textiles — Tests for colour fastness — Part E01: Colour fastness to water (ISO 105-E01)*

EN ISO 105-X12, *Textiles — Tests for colour fastness — Part X12: Colour fastness to rubbing (ISO 105-X12)*

EN ISO 9405, *Textile floor coverings — Assessment of changes in appearance (ISO9405)*

EN ISO 12951, *Textile floor coverings — Determination of mass loss, fibre bind and stair nosing appearance change using the Lisson Tretrad machine (ISO 12951)*

ISO 1763, *Carpets — Determination of number of tufts and/or loops per unit length and per unit area*

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

ISO 1766, Textile floor coverings -- Determination of thickness of pile above the substrate

ISO 2424:2007, *Textile floor coverings — Vocabulary*

ISO 4919, *Carpets — Determination of tuft withdrawal force*

ISO 8543, *Textile floor coverings — Methods for determination of mass*

ISO 10361, *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 2424:2007 and the following apply.

3.1
SPT
thickness of pile above the substrate in mm

3.2
SPW
mass of pile per unit area above the substrate in g/m^2

3.3
SPD
surface pile density in g/cm^3

3.4
SPD$_c$
calculated surface pile density

3.5
N_Z
number of tufts/loops per dm^2

3.6
FD
fibre density factor

4 Identification requirements

This clause specifies the requirements for the identification of the product and tolerances for the identifying properties.

The manufacturer of machine made rugs and runners shall provide information on the following in accordance with the terms and definitions according to ISO 2424:

— commercial references,

— type of production technique,

— type of use surface,

— type of secondary backing (if applicable),

and shall declare the values of the characteristics listed in Table 1 using the test methods specified therein. The tolerances of the characteristics shall be in accordance with Table 1.

Table 1 — Identification requirements

Characteristics	Test method	Tolerances
Fibre composition of use-surface	Regulation EU N° 1007/2011	
Dimensions	EN 14159	EN 14159
Total thickness mm	ISO 1765	±10 %
Total mass per unit area g/m^2	ISO 8543	±10 %
If applicable: Mass of pile per unit area above the substrate (SPW) g/m^2	ISO 8543	±10 %
If applicable: Number of tufts/loops per unit area (N_z)	ISO 1763	±10 %
If applicable: Surface pile density (SPD) in g/cm^3	ISO 8543	±10 %

5 Basic requirements

The general properties of machine-made rugs and runners shall be in accordance with Table 2 when tested in accordance with the test methods therein.

Table 2 — Basic requirements

Characteristics	Requirements	Test methods
Colour fastness to light -man-made fibres -natural fibres	 ≥ 5 ≥ 4	EN ISO 105-B02
Colour fastness to rubbing - dry - wet	 ≥ 3 - 4 ≥ 3	EN ISO 105-X12
Colour fastness to Water (change in colour) - plain rugs and runners - patterned and with tonal effect Water (staining) - all rugs and runners	 ≥ 3 - 4 ≥ 4 ≥ 2 - 3 [a]	EN ISO 105-E01
Tuft withdrawal force: cut pile rugs [b]	3,0 N (average, with no individual result below 1,5 N)	ISO 4919
Tuft withdrawal force: loop pile rugs [b]	10,0 N (average, with no individual result below 5,0 N)	ISO 4919
Fibre bind (synthetic loop rugs and runners without pile only)	fuzzing, hairiness below level of reference photographs	EN ISO 12951, test C (200 cycles)

[a] On multi fibre: worst result.

[b] A representative number or tufts/loops shall be sampled, taking into account the binding.

6 Classification for level of use intensity

Machine-made rugs and runners shall be classified for level of use intensity in accordance with the requirements of Table 3 (for all classes). For pile rugs and runners classified as class 23, SPD_C (g/cm^3) shall be minimum 0,12 and SPW (g/m^2) shall be minimum 1 500 g/m^2. Annex A defines the method to determine the calculated surface pile density.

The change in appearance is determined in accordance with ISO 10361 in either the Hexapod or the Vettermann apparatus using the number of cycles for long term tests. The tested specimens shall be assessed in accordance with EN ISO 9405 and the median grade for overall change in appearance shall meet the requirements specified in Table 3.

Table 3 — Classification for use intensity – Change in appearance – Requirements

Class	Vettermann (20 000 cycles) or Hexapod (12 000 cycles) (ISO 10361)
	Change of appearance rating (EN ISO 9405)
21	2
22	3
23	4

7 Luxury classification

Machine-made rugs and runners without pile shall be classified as LC1.

Machine-made pile rugs and runners shall be classified as specified in Table 4.

Table 4 — Luxury class by mass of pile per unit area above the substrate

Luxury class	SPW (in g/m^2) According to ISO 8543
LC1	< 600
LC2	≥ 600
LC3	≥ 800
LC4	≥ 1 000
LC5	≥ 1 500

8 Additional characteristics

8.1 General

The following additional claims may be made for products described in this document.

8.2 Castor chair suitability for occasional use

If a claim for castor chair suitability for occasional use is made, the product shall meet the requirement for an occasional use r ≥ 2,0 when tested according to EN 985, Test A.

8.3 Suitability for use on stairs (runners only)

The product shall meet the requirement specified in Annex B when tested to EN ISO 12951.

9 Report

The results taken from the test reports of the individual test required for classification shall be summarized as shown in Annex C.

Annex A
(normative)

Method to determine the calculated surface pile density

The following formula shall be used to calculate the calculated surface pile density:

$$SPD_C = \frac{SPW \times 10^{-3}}{SPT \times FD}$$

Surface pile thickness (SPT) shall be determined in accordance with ISO 1766.

The fibre density factors (FD) are as follows:

— acrylic	1,12
— cotton	1,50
— polyamide	1,14
— polyester	1,38
— polypropylene	0,91
— silk	1,25
— viscose	1,52
— wool	1,32

In the case of fibre blends, the minimum requirements are calculated on a pro-rata basis according to the fibre blend.

Annex B
(normative)

Criteria for the assessment of stair suitability

This annex shall be used only for runners that are intended to be installed without the use of protective stair nosing. For runners that are intended to be installed using protective stair nosing, the overall use class shall determine the stair suitability.

For loop pile runners, the thickness of the pile above the substrate measured according to ISO 1766 shall be ≤ 12 mm.

For pile runners: If the primary backing can be seen on a new unused piece of the runner when bent at 90° over a (12,5 ± 1) mm radius, the runner shall be deemed to be unsuitable as long as a visible backing is not part of the surface design.

Assess the appearance of each test specimen using at least three independent assessors according to the characteristics given in Table B.1 (for loop pile runners), Table B.2 (for cut pile runners) or Table B.4 (for runners without pile).

Pile runners showing a pile loss of more than three when assessed in accordance with Tables B.1 or B.2 shall be tested and classified according to the pile withdrawal force test given in Table B.3.

Table B.1 — Loop pile runners

Suitability	Criteria
Not suitable	Extreme changes at the area of the stair edge e.g.: — visible primary backing as long as a visible backing is not part of the surface design; — more than three fully broken loops; — cob-webbing with a fibre length of 15 mm or more.
Suitable for class 21 and 22	Moderate changes at the area of the stair edge e.g.: — not more than three broken loops over the whole width; — cob-webbing with a fibre length of 5 mm to 15 mm; — moderate pattern changes at the stair edge compared to areas of the test specimen exposed to the flat treatment with the Lisson Tretrad; — runners showing pile loss (more than three) are tested and classified according to the pile withdrawal force test (ISO 4919 and Table B.3).
Suitable for class 23	Minor changes at the area of the stair edge e.g.: — limited filament destruction (no broken loops); — cob-webbing with a fibre length of less than 5 mm; — minor pattern changes at the stair edge compared to areas of the test specimen exposed to the flat treatment with the Lisson Tretrad; — runners showing pile loss (more than three) are tested and classified according to the pile withdrawal force test (ISO 4919 and Table B.3).