



SLOVENSKI STANDARD

SIST EN 13845:2017

01-oktober-2017

Nadomešča:
SIST EN 13845:2005

Netekstilne talne obloge - Polivinilkloridne talne obloge z delci v podlagi za povečanje odpornosti proti drsenju - Specifikacija

Resilient floor coverings - Polyvinyl chloride floor coverings with particle based enhanced slip resistance - Specification

Elastische Bodenbeläge - Polyvinylchlorid-Bodenbeläge mit erhöhtem Gleitwiderstand - Spezifikation

Revêtements de sol résilients - Revêtements de sol en chlorure de polyvinyle à résistance accrue au glissement - Spécification

Ta slovenski standard je istoveten z: EN 13845:2017

ICS:

97.150 Talne obloge Floor coverings

SIST EN 13845:2017 en,fr,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 13845

August 2017

ICS 97.150

Supersedes EN 13845:2005

English Version

Resilient floor coverings - Polyvinyl chloride floor coverings with particle based enhanced slip resistance - Specification

Revêtements de sol résilients - Revêtements de sol en chlorure de polyvinyle à résistance accrue au glissement - Spécification

Elastische Bodenbeläge - Polyvinylchlorid-Bodenbeläge mit partikelbasiertem erhöhten Gleitwiderstand - Spezifikation

This European Standard was approved by CEN on 22 May 2017.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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This European Standard exists 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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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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European foreword

This document (EN 13845:2017) 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 February 2018, and conflicting national standards shall be withdrawn at the latest by February 2018.

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 13845:2005.

The main technical changes compared to EN 13845:2005 are:

- a) Where EN standards have been superseded by equivalent ISO standards these have been substituted in the document;
- b) The pendulum slip test has been added to the General Requirements in Table 1.

According to the CEN/CENELEC Internal Regulations, the national standards organizations 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.

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EN 13845:2017 (E)

Introduction

The ramp test is a means of assessing the slipperiness of floors under wet conditions. Ramps of different designs exist and CEN/TC 134 therefore decided not to standardise on a ramp design. The aim of this European Standard is to establish and standardise the principle of testing and specify the parameters to be followed when designing a ramp device and when testing with it.

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1 Scope

This European Standard specifies the characteristics of floor coverings with sustainable enhanced slip resistant characteristics under specified conditions based on polyvinyl chloride and modifications thereof, supplied in either tile or roll form.

To encourage the consumer to make an informed choice, this European Standard includes a classification system (see EN ISO 10874) based on intensity of use, which shows where resilient floor coverings should give satisfactory service.

In addition, this European Standard details the requirements for the information to be included on the packaging labels.

The slip measurements are made in a laboratory on ex-factory floor covering surfaces only. The method described is suitable for testing on wet surfaces.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 425, *Resilient and laminate floor coverings — Castor chair test*

EN 660-2, *Resilient floor coverings — Determination of wear resistance — Part 2: Frick-Taber test*

EN 684, *Resilient floor coverings — Determination of seam strength*

EN 12466:1998, *Resilient floor coverings — Vocabulary*

CEN/TS 16165:2016, *Determination of slip resistance of pedestrian surfaces — Methods of evaluation*

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 23997, *Resilient floor coverings — Determination of mass per unit area (ISO 23997)*

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

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)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12466:1998 and the following apply.

3.1 enhanced slip resistance

capacity of a floor covering to counteract slipping under wet conditions

3.2 floor covering with particle based enhanced slip resistance

floor covering with a wear surface modified to provide sustainable enhanced slip resisting properties under specified conditions. The floor covering can have other solid layers which may differ in composition and/or design and may contain a reinforcement. This type of floor covering contains various aggregate or identifiable particles of different hardness to the surface layer such as cork which are to be present in the surface layer throughout the normal wear life of the product. They do not necessarily form a distinctive, measurable surface layer and have specific tests designed to measure the performance

3.3 polyvinyl chloride floor covering

floor covering with surface layers produced using polyvinyl chloride and modifications thereof as binder

3.4 aggregate

natural or synthetically coloured mineral granules, such as quartz and aluminium trioxide, that can be used to provide and maintain the surface roughness of a resilient floor covering

3.5 wet-loaded area

area in which the floor coverings are generally wet and walked on. These are in buildings used by the public and for industrial purposes, such as for example in baths, changing rooms, washrooms, toilets, sluice rooms, kitchens, etc.

3.6 barefoot area

area where the floor is primarily intended for barefoot use such as in shower trays and pool surrounds

3.7 footwear area

area where the floor is intended for use with shoes and other types of footwear

4 Requirements

4.1 General requirements

Floor coverings described in this European Standard shall comply with the appropriate general requirements specified in Table 1, when tested in accordance with the methods given therein.





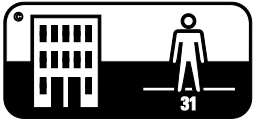
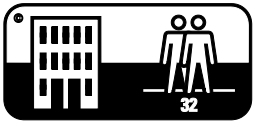
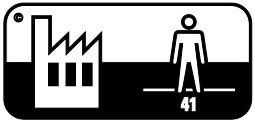
4.2 Classification requirements

Floor coverings described in this European Standard shall be classified as suitable for different levels of use in accordance with the performance requirements specified in Table 2, when tested with the methods given therein. Classification shall conform to the scheme established in EN ISO 10874.

Table 1 — General requirements

Characteristic	Requirement	Test method
Roll form: length (m) width (mm)	Not less than the nominal values	EN ISO 24341
Tiles: side length (mm) squareness and straightness for side length (mm) ≤ 400 mm > 400 mm > 400 mm (intended for welding)	Deviation ≤ 0,13 % of nominal length up to 0,5 mm maximum Deviation allowed at any point ≤ 0,25 ≤ 0,35 ≤ 0,50	EN ISO 24342
Total mass per unit area (average) (g/m ²)	Nominal value + 13 % - 10 %	EN ISO 23997
Overall thickness: (mm) Average Individual results	Nominal + 0,13 - 0,10 average value ± 0,15	EN ISO 24346
Slip classification : Class ESf (footwear) : Class ESb (barefoot)	SIST EN 13845:2017 ≥ 20° (Ramp test) ≥ 36 (Pendulum friction test) ≥ 15° (Ramp test) ≥ 36 (Pendulum friction test)	Annex C (Ramp test) CEN/TS 16165:2016 Annex C, (Pendulum friction Test)
Residual indentation (average) (mm)	≤ 0,1	EN ISO 24343-1
Dimensional stability: (%) sheets and tiles (intended for welding) tiles (intended for dry-joint laying)	Variation in each direction ≤ 0,4 % ≤ 0,25 %	EN ISO 23999
Curling: (mm) Sheets and tiles to be bonded Sheets and tiles un-bonded	(See footnote ^a) ≤ 2	
Flexibility:	Test using a 20 mm mandrel.	EN ISO 24344 Method A
Colour fastness to artificial light	6 minimum	EN ISO 105-B02, Method 3 ^b
<p>^a The test need not be carried out for fully bonded and welded materials. If supplied in tile form and dry joint laid the material shall meet the requirement (2 mm).</p> <p>^b Expose a full size test sample. Store a further test sample in the dark, which will constitute the reference standard for assessment of change in colour.</p>		

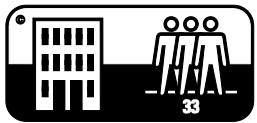
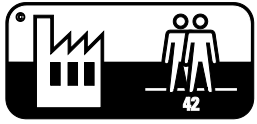
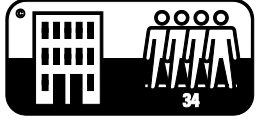
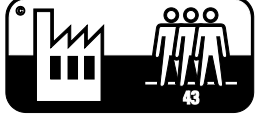
Table 2 — Classification requirements for level of use

Class	Symbol	Level of use	Minimum overall thickness ^a Nominal value, mm	Effect of Wear resistance ^{b c}	Effect of a castor chair	Seam strength N/50 mm
21		domestic moderate/ light	1,0	20 000 cycles	No Requirement	No Requirement
22 22+	 	domestic general/ moderate domestic general	1,5			
23		domestic heavy	1,5			
31		commercial moderate				
32		commercial general	2,0	30 000 cycles	If tested for verification, no disturbance to the surface other than slight change due to flatter appearance and no delamination shall occur.	When welded in accordance with the manufacturers instructions average value = 240. Individual values values = 180
41		industrial moderate				

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Class	Symbol	Level of use	Minimum overall thickness ^a Nominal value, mm	Effect of Wear resistance ^{b c}	Effect of a castor chair	Seam strength N/50 mm
33		commercial heavy	2,0	40 000 cycles		When welded in accordance with the manufacturers instructions average value = 240. Individual values values = 180
42		industrial general				
34		commercial very heavy	2,0	50 000 cycles		
43		industrial heavy				
	Test method				EN 425	EN 684

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EN ISO 24346 Annex D

^a The average value shall be the nominal value $\begin{matrix} +0,13 \\ -0,10 \end{matrix}$ mm. No individual value shall vary more than $\pm 0,15$ mm from the average value.

^b After testing to the required number of cycles the reduction in identifiable particles should be =10 %.

^c Floor coverings for barefoot use only need not be tested and are automatically applied a classification 21/31.