



SLOVENSKI STANDARD

SIST EN 13845:2005

01-oktober-2005

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

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

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

Revetements de sol résilients - Revêtements de sol en chlorure de polyvinyle a résistance accrue au glissement - Specification

Ta slovenski standard je istoveten z: EN 13845:2005

ICS:

97.150 Netekstilne talne obloge Non-textile floor coverings

SIST EN 13845:2005 en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 13845

August 2005

ICS 97.150

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 27 June 2005.

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 Central Secretariat or to any CEN member.

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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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Foreword

This European Standard (EN 13845:2005) has been prepared by Technical Committee CEN/TC 134 “Resilient, textile and laminate floor coverings”, the secretariat of which is held by BSI.

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 2006, and conflicting national standards shall be withdrawn at the latest by February 2006.

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

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EN 13845:2005 (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 685) 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 referenced documents are indispensable for the application of this European Standard. 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 426, *Resilient floor coverings — Determination of width, length, straightness and flatness of sheet material*

EN 427, *Resilient floor coverings — Determination of the side length, squareness and straightness of tiles*

EN 428:1993, *Resilient floor coverings — Determination of overall thickness*

EN 430:1994, *Resilient floor coverings — Determination of mass per unit area*

EN 433:1994, *Resilient floor coverings — Determination of residual indentation after static loading*

EN 434, *Resilient floor coverings — Determination of dimensional stability and curling after exposure to heat*

EN 435:1994, *Resilient floor coverings — Determination of flexibility*

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

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

EN 685, *Resilient, textile and laminate floor coverings - Classification*

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

ISO 105-B02:1994, *Textiles — Tests for colour fastness — Part B02: Colour fastness to artificial light: Xenon arc fading lamp test*

EN 13845:2005 (E)**3 Terms and definitions**

For the purposes of this European Standard, 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 685.

Table 1 — General requirements

Characteristic	Requirement	Test method
Roll form: length (m) width (mm)	Not less than the nominal values	EN 426
Tiles: side length (mm) squareness and straightness for side length ≤ 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 427
Total mass per unit area (average) (g/m ²)	Nominal value + 13 % - 10 %	EN 430
Overall thickness: Average (mm) Individual results	Nominal + 0,13 - 0,10 average value ± 0,15	EN 428
Slip classification (Degrees)	Class ESf (footwear) ≥ 20° Class ESb (barefoot) ≥ 15°	Annex C
Residual indentation (average) (mm)	≤ 0,1	EN 433
Dimensional stability: sheets and tiles (intended for welding) tiles (intended for dry-joint laying)	Variation in each direction ≤ 0,4 % ≤ 0,25 %	EN 434
Curling: Sheets and tiles to be bonded Sheets and tiles un-bonded (mm)	(See footnote ^a) ≤ 2	
Flexibility:	Test using a 20 mm mandrel.	EN 435 Method A
Colour fastness to artificial light	6 minimum	EN ISO 105-B02:1994 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	1,0	20 000 cycles	No Requirement	No Requirement
22 22+		domestic general	1,5			
23		domestic heavy	1,5			
31		commercial moderate	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
32		commercial general				
41		light industrial moderate				

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Table 2 — (continued)

Class	Symbol	Level of use	Minimum overall thickness ^a Nominal value, mm	Effect of Wear ^{b,c} resistance	Effect of a 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 ≥ 180
42		light industrial general				
34		commercial very heavy	2,0	50 000 cycles		
43		light industrial heavy				
Test method						
<p>^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.</p> <p>^b After testing to the required number of cycles the reduction in identifiable particles should be $\leq 10\%$.</p> <p>^c Floor coverings for barefoot use only need not be tested and are automatically applied a classification 21/31.</p>						