SLOVENSKI STANDARD
SIST EN 651:1999

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Netekstilne talne obloge - Polivinilkloridne talne obloge s penasto plastjo - Specifikacija

Resilient floor coverings - Polyvinyl chloride floor coverings with foam layer - Specification

Elastische Bodenbeläge - Polyvinylchlorid-Bodenbeläge mit einer Schaumstoffschicht - Spezifikation

Revetements de sol résilients - Revetements de sol a base de polychlorure de vinyle sur mousse - Spécifications

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ICS:

97.150	Netekstilne talne obloge	Non-textile floor coverings

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English version

Resilient floor coverings - Polyvinyl chloride floor coverings with foam layer - Specification

Revêtements de sol résilients - Revêtements de sol à base de polychlorure de vinyle sur mousse - Spécifications

Elastische Bodenbeläge - Polyvinylchlorid-Bodenbeläge mit einer Schaumstoffschicht - Spezifikation

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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.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart,36 B-1050 Brussels

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 134 "Resilient and textile 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of an identical text or by endorsement, at the latest by April 1997, and conflicting national standards shall be withdrawn at the latest by April 1997.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Annex A is informative, Annex B is informative and Annex C is informative.

1 Scope

This European Standard specifies the characteristics of floor coverings based on polyvinyl chloride with polyvinyl chloride foam layer, supplied in either tile or roll form.

To encourage the consumer to make an informed choice, the standard includes a classification system (see EN 685) based on intensity of use, which shows where these floor coverings should give satisfactory service. It also specifies requirements for marking.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 424	Resilient floor coverings - Determination of the effect of the simulated movement of a furniture leg
EN 425	Resilient floor coverings - Determination of the effect of a castor chair
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	Resilient floor coverings - Determination of overall thickness
EN 429	Resilient floor coverings - Determination of the thickness of layers
EN 430	Resilient floor coverings - Determination of mass per unit area
EN 431	Resilient floor coverings - Determination of peel resistance
EN 433	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 436	Resilient floor coverings - Determination of density
prEN 660-1	Resilient floor coverings - Determination of wear resistance - Part 1: Stuttgart test
prEN 660-2	Resilient floor coverings - Determination of wear resistance - Part 2: Frick Taber test
EN 684	Resilient floor coverings - Determination of seam strength
EN 685	Resilient floor coverings - Classification
EN 20 105-B02	Textiles - Tests for colour fastness - Part B02 : Colour fastness to artificial light : Xenon arc fading lamp test (ISO 105-B02 : 1988)

3 Definitions

For the purposes of this standard, the following definition applies:

polyvinyl chloride floor covering: Floor covering with surface layers which are produced using polyvinyl chloride (and modifications thereof) as binder

4 Requirements

4.1 General requirements

Floor coverings described in this standard shall conform to the appropriate general requirements specified in table 1, when tested in accordance with the methods given therein.

4.2 Classification requirements

4.2.1 Wear group classification

Polyvinyl chloride floor coverings are classified in the appropriate wear group specified in table 2, when tested in accordance with prEN 660 -1 or prEN 660 -2.

NOTE: The tests are intended to determine the wear resistance of wear layers defined either by thickness loss (prEN 660-1) or volume loss (prEN 660-2).

Floor coverings described in this standard shall be classified in wear group T, P or M.

Floor coverings with a transparent wear layer are *a priori* group T and need not be tested.

4.2.2 Level of use classification

Floor coverings described in this standard shall be classified as suitable for different levels of intensity of use in accordance with the performance requirements specified in table 3, when tested with the methods given therein. Classification shall comply with the scheme specified 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 mm 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
Overall thickness: mm average individual results	Nominal value +0,18 -0,15 Average value ±0,20	EN 428
Thickness of foam layer mm	Nominal thickness shall be stated	EN 429
Total mass per unit area (average) g/m^2	Nominal value +13% -10%	EN 430
Density of the wear layer (average) kg/m^3	Nominal value ± 50	EN 436
Dimensional stability after exposure to heat: %		EN 434
sheets and tiles (intended for welding)	≤0,40	
tiles (intended for dry-joint laying)	≤0,25	
Curling after exposure to heat:		EN 434
sheets and tiles (intended for welding)	≤8	
tiles (intended for dry-joint laying)	≤2	
Colour fastness to artificial light	6 minimum	EN 20 105-B02 Method 3[1)]
Peel resistance: N/50 mm		EN 431
average	≥50	
individual results	≥40	

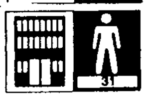
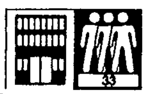
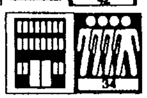
[1)] Expose a full size test specimen. Store a further test specimen in the dark, which will constitute the reference standard for assessment of colour change.

Table 2: Classification requirements for wear groups

Characteristic	**Requirements for wear group**				**Test method**
	T	P	M	F	
Thickness loss Δl mm	$\Delta l \leq 0{,}08$ [1)]	$0{,}08 < \Delta l \leq 0{,}15$	$0{,}15 < \Delta l \leq 0{,}30$	$0{,}30 < \Delta l \leq 0{,}60$	prEN 660-1
Volume loss F_v mm^3	$F_v \leq 2{,}0$ [1)]	$2{,}0 < F_v \leq 4{,}0$	$4{,}0 < F_v \leq 7{,}5$	$7{,}5 < F_v \leq 15{,}0$	prEN 660-2

[1)] If tested for verification.

Table 3 Classification requirements for level of use

Class	Symbol	Level of use	Thickness of wear layer. Nominal value 1) mm			Effect of castor chair	Simulated movement of a furniture leg		Seam strength when welded in accordance with manufacturer's instructions N/50 mm	Underfoot comfort	Residual indentation after static loading mm
			T	P	M						
21		Domestic moderate	0,15	0,20	0,30	No requirement		No requirement	No requirement	Indentation under static loading (measured after 15 s under load) ≥ 0,40 mm	≤ 0,35
22		Domestic general	0,20	0,30	0,45		No damage shall be visible after testing with a type 3 foot				
23		Domestic heavy	0,25	0,40	0,60						
31		Commercial moderate									
32		Commercial general	0,35	0,50	0,75	No disturbance to the surface other than slight change in appearance and no delamination shall occur	No damage shall be visible after testing with a type 2 foot	When welded in accordance with manufacturer's instructions: no damage shall be visible to the seams, when tested with a type 0 foot	Average ≥ 240 Individual values ≥ 180	No requirement	≤ 0,20
41		Light industrial moderate									
33		Commercial heavy	0,50	0,65	1,00						
42		Light industrial general									
34		Commercial very heavy	0,65	1,00	1,50						
Test method			EN 429			EN 425	EN 424		EN 684	EN 433	