SLOVENSKI STANDARD
SIST EN 654:1999

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Netekstilne talne obloge - Delno upogibljive polivinilkloridne plošče - Specifikacija

Resilient floor coverings - Semi-flexible polyvinyl chloride tiles - Specification

Elastische Bodenbeläge - Polyvinylchlorid Flex-Platten - Spezifikation

Revetements de sol résilients - Dalles semi-flexibles a base de polychlorure de vinyle - Spécifications

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ICS:

97.150 Netekstilne talne obloge Non-textile floor coverings

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English version

Resilient floor coverings - Semi-flexible polyvinyl chloride tiles - Specification

Revêtements de sol résilients - Dalles semi-flexibles à base de polychlorure de vinyle - Spécifications

Elastische Bodenbeläge - Polyvinylchlorid Flex-platten - Spezifikation

This European Standard was approved by CEN on 1996-09-07. 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.

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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of an identical text or by endorsement, at the latest by April 1997, and conflicting national standards shall be withdrawn at the latest by April 1997.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 semi-flexible tiles based on polyvinyl chloride and modifications thereof.

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 425	Resilient floor coverings - Determination of the effect of a castor chair
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 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 435	Resilient floor coverings - Determination of flexibility
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 662	Resilient floor coverings - Determination of curling on exposure to moisture
EN 663	Resilient floor coverings - Determination of conventional pattern depth
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 definitions apply:

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

3.2 semi-flexible polyvinyl chloride floor covering: Rigid tiles made from polyvinyl chloride (and modifications thereof) which can only be deflected under specified conditions.

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 - Level of use classification

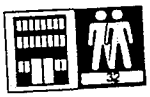
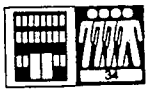
Floor coverings described in this standard shall be classified as suitable for different levels of use in accordance with the performance requirements specified in table 2, when tested with the methods given therein. Classification shall conform to the scheme established in EN 685.

Table 1: General requirements

Characteristic		Requirement	Test method
Side length of tiles	mm	Deviation ≤ 0,13 % of nominal length up to 0,5 mm maximum	EN 427
Squareness and straightness for side length ≤ 400 mm > 400 mm	mm	Deviation allowed at any point ≤ 0,25 ≤ 0,35	
Overall thickness average individual results	mm	 Nominal value +0,13 -0,10 Average value ±0,15	EN 428
Total mass per unit area average	g/m^2	 Nominal value +13% -10%	EN 430
Density average Products with nominal density ≥230 kg/m^3	kg/m^3	 Nominal value ± 75 Nominal value ± 100	EN 436
Residual indentation after static loading (average)	mm	≤ 0,10	EN 433
Dimensional stability after exposure to heat	%	≤0,25	EN 434
Curling on exposure to moisture	mm	≤0,75	EN 662
Flexibility		Shall show no signs of cracking when deflected to a minimum of 15 mm	EN 435 Method B
Colour fastness to artificial light		6 minimum	EN 20 105-B02 Method 3[1)]

[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 level of use**

Class	Symbol	Level of use	Overall thickness, Nominal value, [1] mm		Effect of castor chair [4]
			Smooth tiles	Special products [2]	
21 [3]		Domestic moderate	Without relief 1,6 With relief 2,0	Without relief 1,6 With relief 2,0	No requirement
22 [3]		Domestic general			
23 [3]		Domestic heavy	2,0	2,0	
31 [3]		Commercial moderate			
32		Commercial general	2,5	2,0	When tested for verification, no disturbance to the surface other than slight change in appearance and no delamination shall occur
41		Light industrial moderate			
33		Commercial heavy	2,5	2,0	
42		Light industrial general			
34		Commercial very heavy	3,2	2,5	
Test method			EN 429		EN 425

[1] The average value shall be the nominal value $^{+0,13}_{-0,10}$ mm. No individual value shall vary more than ± 0,15 mm from the average value.

[2] Tiles shall be classed as special products when the thickness loss is ≤ 0,4 mm or the volume loss is ≤ 10 mm^3 when tested in accordance with prEN 660-1 or prEN 660-2 respectively.

[3] Tiles with a relief shall be at least 2 mm thick and shall have a conventional pattern depth of at least 0,5 mm when tested in accordance with EN 663 and are classified 21, 22, 23 and 31.

[4] Floor coverings in classes 32 to 42 are *a priori* classified as suitable for castor chair use and need not be tested.

5 Marking

Floor coverings covered by this standard and/or their packaging shall bear the following marking:

a) number and date of this European Standard, i.e. EN 654 : 1996;

b) manufacturer's or supplier's identification;

c) product name;

d) colour/pattern, and batch number;

e) classes/symbols appropriate for the product;

f) the length, width and thickness

g) the area in square metres contained in a package.