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Netekstilne talne obloge - Specifikacija za linolej z vzorcem in brez njega

Resilient floor coverings - Specification for plain and decorative linoleum

Elastische Bodenbeläge - Spezifikation für Linoleum mit und ohne Muster

Revêtements de sol résilients - Spécification pour le linoléum uni et décoratif

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97.150	Netekstilne talne obloge	Non-textile floor coverings

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Resilient floor coverings - Specification for plain and decorative linoleum

Revêtements de sol résilients - Spécifications pour le linoléum uni et décoratif

Elastische Bodenbeläge - Spezifikation für Linoleum mit und ohne Muster

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document (EN 548:2011) 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of an identical text or by endorsement, at the latest by September 2011, and conflicting national standards shall be withdrawn at the latest by September 2011.

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1 Scope

This European Standard specifies the characteristics of plain and decorative linoleum, supplied as either tiles or rolls.

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

The term 'linoleum' is frequently incorrectly applied to a range of floor coverings, often to those based on polyvinyl chloride or rubber. Such materials are not included in this standard.

2 Normative references

The following referenced documents are indispensable for the application 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 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, *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 435, *Resilient floor coverings — Determination of flexibility*

EN 669, *Resilient floor coverings — Determination of dimensional stability of linoleum tiles, caused by changes in atmospheric humidity*

EN 670, *Resilient floor coverings — Identification of linoleum and determination of cement content and ash residue*

EN ISO 105-B02, *Textiles — Tests for colour fastness — Part B02: Colour fastness to artificial light: Xenon arc fading lamp test (ISO 105-B02:1994, including amendment 1:1998)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
linoleum cement
binder in linoleum, consisting of a mixture of linseed oil and/or other vegetable drying oils, rosin and drying oil catalysts, which is converted to a semi elastic mass by an oxidative curing process

3.2
linoleum
product produced by calendaring one or more layers of a homogeneous mixture of linoleum cement, cork and/or woodflour, pigments and inorganic fillers containing a fibrous reinforcement and/or a fibrous backing. The product is then converted into its final form by an oxidative curing process

NOTE The only chemical cross-linking bondings in linoleum will be those which are formed during the oxidation process.

3.3
surface layer
layer or layers with the same binder above a support material or backing

4 Identification

Linoleum shall be identified by its ability to be disintegrated in 0,5 mol/l potassium hydroxide/methanol solution and by the determination of cement content and ash residue.

The minimum amount of linoleum cement shall be 30 % when tested in accordance with EN 670.

The maximum amount of inorganic filler (ash residue) shall be 50 % when tested in accordance with EN 670.

5 Requirements

5.1 General requirements

All classes of plain and decorative linoleum shall comply with the appropriate general requirements specified in Table 1, when tested in accordance with the methods given therein.

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	 Deviation ≤ 0,15 % of nominal length up to 0,5 mm maximum Deviation allowed at any point ≤ 0,25 ≤ 0,35	EN 427
Dimensional stability of tiles caused by changes of atmospheric humidity %	Variation ≤ 0,1	EN 669
Overall thickness mm average individual values	 Nominal value ± 0,15 Nominal value ± 0,20	EN 428

Table 1 *(continued)*

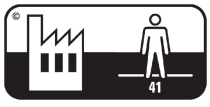
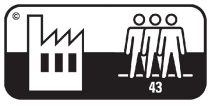
Characteristic	Requirement	Test method
Calendared surface layer	minimum 0,80 mm	EN 429
Effect of a castor chair	No disturbance to the surface other than slight change in appearance and no delamination shall occur	EN 425
Mass per unit area g/m^2 average	Nominal value ± 10 %	EN 430
Residual indentation after static loading average mm nominal thickness: ≤ 3,2 mm ≥ 4,0 mm	 ≤ 0,15 ≤ 0,20	EN 433
Flexibility of sheets Thickness (nominal) — Mandrel diameter 2,0 mm — 30 mm 2,5 mm — 40 mm 3,2 mm — 50 mm 4,0 mm — 60 mm	Shall show no sign of cracking when bent around the appropriate mandrel	EN 435 Method A
Colour fastness to artificial light	6 minimum	EN ISO 105-B02: Method 3[a]
[a] Before comparing the test piece, expose the reference sample together with the Blue Wool cloth to the xenon arc lamp, until a contrast is produced on Blue Wool Reference 2 equal to the contrast illustrated by Grey Scale 3. This step is necessary to remove the inherent 'stove yellowing' of linoleum before the stable colouration is achieved.		

Plain and decorative linoleum complying with the requirements of this standard are suitable for use with castor chairs.

5.2 Classification requirements

The classification scheme for resilient floor coverings is described in EN 685. The requirements for plain and decorative linoleum in accordance with this scheme are related to the nominal overall thickness of the linoleum, as shown in Table 2.

Table 2 — Classification requirements

Class	Symbol	Intensity of use	Nominal overall thickness, mm
		Domestic	
21		Moderate	2,0
22		General	2,0
22+		General	2,0
23		Heavy	2,0
		Commercial	
31		Moderate	2,0
32		General	2,0
33		Heavy	2,5
34		Very heavy	2,5[a]
		Light Industrial	
41		Moderate	2,0[a]
42		General	2,5[a]
43		Heavy	[b]

[a] Other thicknesses, e.g. 3,2 mm and 4,0 mm, may be specified to satisfy particular customer requirements.

[b] Any requirements for class 43 should be determined and agreed between the parties concerned, taking into account specification of use.