

BS EN 688:2011



BSI Standards Publication

Resilient floor coverings — Specification for corklinoleum

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National foreword

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The UK participation in its preparation was entrusted to Technical Committee PRI/60, Resilient floor coverings.

A list of organizations represented on this committee can be obtained on request to its secretary.

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linoléum sur liège

Elastische Bodenbeläge - Spezifikation für Korklinoleum

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Foreword

This document (EN 688:2011) 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of an identical text or by endorsement, at the latest by October 2011, and conflicting national standards shall be withdrawn at the latest by October 2011.

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1 Scope

This European Standard specifies the characteristics of corklinoleum, supplied in roll form.

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 excluded from 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 426, *Resilient floor coverings — Determination of width, length, straightness and flatness of sheet material*

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 436, *Resilient floor coverings — Determination of density*

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

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

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)*

EN ISO 717-2, *Acoustics — Rating of sound insulation in buildings and of building elements — Part 2: Impact sound insulation (ISO 717-2:1996)*

EN ISO 10140-3, *Acoustics — Laboratory measurement of sound insulation of building elements — Part 3: Measurement of impact sound insulation (ISO 10140-3:2010)*

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

corklinoleum

product produced by calendaring a homogeneous mixture of linoleum cement, granulated cork, pigments and inorganic filler onto a fibrous backing

NOTE 1 The product is then converted into its final form by an oxidative curing process.

NOTE 2 The only chemical cross-linking bondings in corklinoleum will be those which are formed during the oxidation process. Corklinoleum is a composition containing sufficient granulated cork, to give underfoot comfort and impact sound reduction.

4 Identification

Corklinoleum shall be identified by its ability to be disintegrated in 0,5 mol/l potassium hydroxide/methanol solution.

The maximum amount of inorganic filler (ash residue) shall be 25 % when tested in accordance with EN 670.

Corklinoleum shall be distinguished from other types of linoleum by its density.

5 Requirements

5.1 General requirements

All classes of corklinoleum shall comply with the general requirements, as appropriate, specified in Table 1, when tested in accordance with the methods given therein.

Table 1 — General requirements

Property	Requirement	Test method
Rolls Length m width mm	Not less than the nominal values	EN 426
Overall thickness mm Average	Nominal value $\pm 0,15$	EN 428
Individual values	Nominal value $\pm 0,20$	
Thickness of fibrous backing mm Average	$\leq 0,80$	EN 429
Mass per unit area g/m^2 Average	Nominal value $\pm 10 \%$.	EN 430
Density kg/m^3	≤ 850	EN 436
Residual indentation after static loading mm Average 3,2 mm nominal thickness 4,5 mm nominal thickness 6,0 mm nominal thickness	 $\leq 0,30$ $\leq 0,35$ $\leq 0,45$	EN 433
Impact sound reduction dB 3,2 mm nominal thickness 4,5 mm nominal thickness 6,0 mm nominal thickness	 ≥ 12 ≥ 14 ≥ 16	Test in accordance with EN ISO 10140-3 and calculate and express the results in accordance with EN ISO 717-2.





Table 1 (continued)

Flexibility		EN 435 Method A
Thickness (nominal)	Mandrel diameter	Shall show no signs of cracking when bent around the appropriate mandrel
3,2 mm	30 mm	
4,5 mm	40 mm	
6,0 mm	50 mm	
Colour fastness to artificial light	5 minimum	EN ISO 105-B02 Method 3 ¹⁾
¹⁾ 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.		

5.2 Classification requirements

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

Table 2 — Classification

Class	Symbol	Level of use	Nominal overall thickness
21		domestic moderate	3,2
22		domestic general	4,5 ¹⁾
22+		domestic general	
31		commercial moderate	
¹⁾ Other thicknesses, e.g. 4,5 mm and 6,0 mm, can be specified to obtain more underfoot comfort and/or impact sound reduction			

6 Marking

Corklinoleum floor coverings and/or their packaging shall bear the following marking:

- number and date of this European Standard, i.e. EN 688:2011;
- manufacturer's or supplier's identification;
- product name;
- colour/pattern, and batch and roll number;
- classes/symbols appropriate for the product;
- length, width and thickness of rolls.

Annex A (informative)

Optional properties

Where the following properties are required for specific applications, the floor covering should be tested in accordance with the appropriate methods:

- electrical resistance (see EN 1081);
- electrostatic propensity (see EN 1815);
- effect of stains (see EN 423).

Bibliography

- [1] EN 423, *Resilient floor coverings — Determination of resistance to staining*
- [2] EN 1081, *Resilient floor coverings — Determination of the electrical resistance*
- [3] EN 1815, *Resilient and textile floor coverings — Assessment of static electrical propensity*
- [4] EN 427, *Resilient floor coverings — Determination of the side length, squareness and straightness of tiles*

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