



**SLOVENSKI STANDARD**  
**SIST EN 686:1999**

**01-marec-1999**

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**Netekstilne talne obloge - Specifikacija linoleja na penastem hrbtišču brez dekorativnega vzorca in z njim**

Resilient floor coverings - Specification for plain and decorative linoleum on a foam backing

Elastische Bodenbeläge - Spezifikation für Linoleum mit und ohne Muster mit Schaumrücken

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Revetements de sol résilients - Spécifications pour le linoléum uni et décoratif sur sous-couche de mousse

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**Ta slovenski standard je istoveten z: EN 686:1997**

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**ICS:**

97.150

Netekstilne talne obloge

Non-textile floor coverings

**SIST EN 686:1999**

**en**

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EUROPEAN STANDARD

EN 686

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 1997

ICS 97.150

Descriptors: floor coverings, linoleum, specifications, characteristics, classifications, graphical symbols, utilization, marking

English version

## Resilient floor coverings - Specification for plain and decorative linoleum on a foam backing

Revêtements de sol résilients - Spécifications  
pour le linoléum uni et décoratif sur  
sous-couche de mousse

Elastische Bodenbeläge - Spezifikation für  
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This European Standard was approved by CEN on 1997-04-11. 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.

The European Standards exist 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.

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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.

Annex A and annex B are informative.

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 November 1997, and conflicting national standards shall be withdrawn at the latest by November 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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## 1 Scope

This European Standard specifies the characteristics of plain and decorated linoleum on a foam backing as a compound floor covering, supplied in roll form.

To encourage the consumer to make an informed choice, this 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

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 426	Resilient floor coverings - Determination of width, length, straightness and flatness of sheet material
EN 428	Resilient floorcoverings - 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 435	Resilient floor coverings - Determination of flexibility
prEN 670	Identification and composition of linoleum - Determination of cement content and ash residue
EN 685	Resilient floor coverings - Classification
EN 20 105-BO2	Textiles - Tests for colour fastness - Part BO2 : 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 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 a homogeneous mixture of linoleum cement, cork and/or woodflour, pigments and inorganic filler onto 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 linoleum on a foam backing:** Product formed by laminating linoleum on to a foam layer.

## 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 prEN 670.

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

## 5 Requirements

### 5.1 General requirements

All classes of linoleum on foam backing shall comply with the appropriate general requirements 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 average                      mm individual values	Nominal value $\pm 0,20$ Nominal value $\pm 0,25$	EN 428
Thickness of linoleum average                      mm individual values Thickness of fibrous backing average                      mm Thickness of foam backing average                      mm	Nominal value $\pm 0,15$ Nominal value $\pm 0,20$ $\leq 0,80$ Nominal value $\pm 0,10$	EN 429
Mass per unit area average                      g/m <sup>2</sup>	nominal value $\pm 10\%$	EN 430
Residual indentation after static loading                      mm average	<a href="https://standards.iteh.ai/catalog/standards/sist/78c9e201-e458-467e-bd05-c95adedb4577/sist-en-686-1999">SIST EN 686:1999</a> $\leq 0,30$	EN 433
Flexibility Thickness of linoleum (nominal) 2,0 mm 2,5 mm                      Mandrel diameter 30 mm 40 mm	Shall show no signs of cracking when bent around the appropriate mandrel	EN 435 Method A
Colour fastness to artificial light	6 minimum	EN 20 105- BO2: Method 3 <sup>1)</sup>
Effect of a castor chair	No damage shall be apparent.	EN 425
Peel resistance between foam backing and fibrous backing average                      N/50mm	$\geq 10$	EN 431
<p><sup>1)</sup> 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.</p>		

## 5.2 Classification requirements

The classification scheme for resilient floor coverings is described in EN 685. The requirements for floor coverings described in this standard sold as a compound floor covering, in accordance with this scheme, are related to the nominal thickness of the linoleum, as shown in table 2.

Table 2: Classification

Class	Symbol	Intensity of use	Nominal thickness of the linoleum, mm
21		<b>Domestic</b> Moderate	2,0
22		General	2,0
23		Heavy	2,0
31		<b>Commercial</b> Moderate	2,0
32		General	2,0
33		Heavy	2,5
41		<b>Light Industrial</b> Moderate	2,0



## 6 Marking

Floor coverings of plain and decorative linoleum on a foam backing and/or their packaging shall bear the following marking:

- a) number and date of this European Standard, i.e. EN 686 : 1997;
- b) manufacturer's or supplier's identification;
- c) product name;
- d) colour/pattern, and batch and roll number;
- e) classes/symbols appropriate for the product
- f) type of foam backing
- g) the length, width and thickness of rolls

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