



**SLOVENSKI STANDARD**  
**SIST EN 14499:2005**  
**01-marec-2005**

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**Tekstilne talne obloge - Minimalne zahteve za podloge preprog**

Textile floor coverings - Minimum requirements for carpet underlays

Textile Bodenbeläge - Mindestanforderungen an Teppichunterlagen

Revetements de sol textiles - Exigences minimales pour les thibaudes de moquette

**Ta slovenski standard je istoveten z: EN 14499:2004**

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**ICS:**

59.080.60      Tekstilne talne obloge      Textile floor coverings

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EUROPEAN STANDARD

EN 14499

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2004

ICS 59.080.60

English version

## Textile floor coverings - Minimum requirements for carpet underlays

Revêtements de sol textiles - Exigences minimales pour les  
thibaudes de moquette

Textile Bodenbeläge - Mindestanforderungen an  
Teppichunterlagen

This European Standard was approved by CEN on 10 September 2004.

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.

This European Standard exists 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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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

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## Foreword

This document (EN 14499:2004) 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of an identical text or by endorsement, at the latest by May 2005, and conflicting national standards shall be withdrawn at the latest by May 2005.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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**EN 14499:2004 (E)****1 Scope**

This document specifies minimum performance requirements for fibrous, non-fibrous and combined underlays.

**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 ISO 13934-1, *Textiles — Tensile properties of fabrics — Part 1: Determination of maximum force and elongation at maximum force using the strip method (ISO 13934-1:1999)*

ISO 1957, *Machine-made textile floor coverings -- Selection and cutting of specimens for physical tests*

ISO 1765, *Machine-made textile floor coverings — Determination of thickness*

ISO 2094, *Textile floor coverings — Determination of thickness loss under dynamic loading*

ISO 3415, *Textile floor coverings – Determination of thickness loss after brief, moderate static loading*

ISO 3416, *Textile floor coverings — Determination of thickness loss after prolonged, heavy static loading*

ISO 10361, *Textile floor coverings — Production of changes in appearance by means of Vettermann drum and hexapod tumbler testers*

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**3 Terms and definitions**

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

**3.1 Fibrous underlay****3.1.1****needlefelt underlay**

underlay made wholly of fibres entangled or matted together by needling of a fibre batt

**3.1.2****impregnated fibrous underlay**

underlay made of fibrous material consolidated by impregnation with a binding agent

NOTE A woven, non woven or film scrim may be included in a fibrous underlay for support during manufacture

**3.2 Non-fibrous underlay****3.2.1****cellular rubber underlay**

underlay formed essentially of a vulcanized rubber foam, with or without a carrier or backing material bonded thereto

**3.2.2****cellular plastics (polymeric) underlay**

underlay formed essentially of a polymeric foam, e.g. polyurethane, with or without a carrier or backing material bonded thereto

**3.2.3****rubber crumb underlay**

underlay formed essentially of crumb vulcanized rubber with or without a carrier or backing material bonded thereto

**3.3****combined underlay**

underlay composed of one or more layers of any fibrous underlay combined with one or more layers of any non-fibrous underlay

**3.4****initial thickness**

thickness of an underlay measured under a pressure of 2 kPa

**3.5****compression**

change in thickness of the underlay when the pressure is increased from 2 kPa to 100 kPa

**4 Sampling**

Sampling shall be carried out in accordance with ISO 1957. A full width sample 1 m in length in the machine production direction shall be taken. For non-fibrous underlays, a minimum period of 3 days shall be allowed between manufacture and testing.

**5 Requirements**

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All underlays shall conform to the minimum performance requirements specified in Table 1.

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Table 1 — Minimum requirements

Characteristic	Requirement	Test Method
Breaking Strength (N)	40 min	EN ISO 13934-1
Elongation	10% max for applied force of 40N	EN ISO 13934-1
Static Loading long term 24 h recovery Fibrous Underlay Non-fibrous Underlay Combined	40% max thickness loss 15% max thickness loss 40 % max thickness loss	ISO 3416
Static Loading short term Compressibility	80% min thickness retention 20% max thickness loss	ISO 3415
Dynamic Loading Fibrous Underlay Non-fibrous Underlay Combined	40% max thickness loss 15% max thickness loss 20% max thickness loss	ISO 2094
Thickness (mm)	$\geq 4,0$	ISO 1765
Thickness deviation a) mean from nominal Fibrous Underlay /combined Non-fibrous Underlay b) from Max to min Fibrous Underlay /combined Non-fibrous Underlay	15% max 12% max 4mm max 3mm max	ISO 1765 <a href="https://standards.iteh.ai/catalog/standards/sist/1e61b5d5-a54e-4925-bf8f-cc4c69fa8830/sist-en-14499-2005">https://standards.iteh.ai/catalog/standards/sist/1e61b5d5-a54e-4925-bf8f-cc4c69fa8830/sist-en-14499-2005</a>
Resistance to breaking or cracking	No cracks longer than 50 mm No cracks in backing	Annex A
Appearance/use	* No negative effect.	ISO 10361

## 6 Marking

Underlays shall be provided with a label or other means giving at least the following information:

- a) the number and date of this document
- b) the manufacturer's or supplier's identification or trade mark;
- c) a description of the underlay, i.e. fibrous underlay, non-fibrous underlay or combined underlay, as appropriate;



## Annex A (normative)

### Method for determination of resistance to breaking and cracking

NOTE This test is applicable to all types of underlay except those of wholly fibrous construction.

#### A.1 Principle

A rectangular piece of underlay is folded at each end. One end is placed under a weight-piece, whilst the other is folded without an added weight. After 1 h, the weight-piece is removed and each fold of the test specimen is visually assessed for signs of cracking.

#### A.2 Apparatus

##### A.2.1 Rectangular rigid metal plate,

of minimum dimensions 80 mm x 40 mm.

##### A.2.2 Weight-piece,

such that the combined mass of the metal plate (A. 2. 1) and the weight piece is 2,5 kg.

##### A.2.3 Single-sided adhesive carpet tape,

50 mm wide.

#### A.3 Test specimen

The test specimen shall be of minimum dimensions 240 mm x 120 mm.

#### A.4 Procedure

**A.4.1** Fold the test specimen as shown in Figure A.1, so that when folded the edges of the test specimen meet and the backing material, if any, is innermost.

**A.4.2** Tape (A.2.3) the edges of the test specimen together and then turn the test specimen over so that the edges where the folds meet are on the underside.

**A.4.3** Place the metal plate (A.2.1) on the folded test specimen as shown in Figure A.2.

**A.4.4** Place the weight-piece (A.2.2) on top of the metal plate and leave for 1 h.

**A.4.5** Remove the weight-piece and metal plate and immediately examine the folded specimen for signs of cracking and breaking.