

SLOVENSKI STANDARD SIST-TS CEN/TS 14472-2:2003

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Resilient, textile and laminate floor coverings - Design, preparation and installation - Part 2: Textile floor coverings

Textile Bodenbeläge - Stuhlrollenprüfung

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Revetements de sol résilients, textiles et stratifiés : Conception, préparation et installation - Partie 2: Revetements de sol textiles

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Resilient, textile and laminate floor coverings - Design, preparation and installation - Part 2: Textile floor coverings

Revêtements de sol résilients, textiles et stratifiés -Conception, préparation et installation - Partie 2: Revêtements de sol textiles Elastische, textile und Laminatbodenbeläge - Planung, Vorbereitung und Verlegung - Teil 2: Textile Bodenbeläge

This Technical Specification (CEN/TS) was approved by CEN on 30 september 2003 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

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Foreword

This document (CEN/TS 14472-2:2003) has been prepared by Technical Committee CEN/TC 134 "Resilient, textile and laminate floor coverings", the secretariat of which is held by BSI.

The Technical Specification CEN/TS 14472, *Resilient, textile and laminate floor coverings* — *Design, preparation and installation,* consists of the following four parts:

Part 1: General

Part 2: Textile floor coverings

Part 3: Laminate floor coverings

Part 4: Resilient floor coverings

This document includes a Bibliography.

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of an identical text or by endorsement, at the latest by December 2003, and conflicting national standards shall be withdrawn at the latest by December 2003.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this Technical Specification: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

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Introduction

European Standards are currently available for:

- many of the floor covering types on the market in Europe;
- classification schemes, which define the characteristics of a location where a floor covering is to be used, and enable an appropriate product to be selected

For these products to give satisfactory service, they need to be installed competently, in accordance with the manufacturer's instructions, with the appropriate national code of practice for textile floor covering or following the advice of this part of the Technical Specification. It is also important that they receive appropriate maintenance in service according to the manufacturer's instructions.

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1 Scope

This Technical Specification provides recommendations for the installation of textile floor coverings. It covers all products composed of textile material with a pile or non-pile use surface, and includes the laying of carpet tiles (excluding rugs). It details suitable methods of installation and advises on the selection of the materials required for their implementation.

The guidelines in this Technical Specification are intended for use in cases where manufacturer's instructions, taking account of the national code of practice in the country where the installation is to be made, are not available. References to the national codes that are currently available are listed in the bibliography of the various parts of this Technical Specification.

This Part 2 of the Technical Specification is intended for use in conjunction with Part 1 that deals with general matters relevant to resilient and laminate floor coverings as well as textile floor coverings.

All parts of the Technical Specification are intended to supplement and not conflict with national standards.

2 Normative references

This Technical Specification 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 Technical Specification only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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ISO 2424

Textile floor coverings – Vocabulary.

3 Terms and definitions

For the purposes of this Technical Specification 14472, the terms and definitions given in ISO 2424 and in CEN/TS 14472-1 apply together with the following:

3.1

underlayment

thin layer, applied to a screed to provide a smooth and/or flat surface to receive the floor covering.

3.2

interlay

thin flexible sheet, supplied in 1-2 meter wide rolls. This interlay is laid below foam backed carpets to facilitate easy removal and to stop foam adhesion to the subfloor. Dust and other subfloor contamination are stopped from being transferred onto the underfelt or floor covering. The interlay gives enhanced thermal insulation properties to the floor covering.

3.3

carpet underlay

coherent layer of textile or other material placed beneath an exposed floor covering.

It can be fibrous, non-fibrous or combined. It provides underfoot comfort, sound absorbing and energy absorbing properties. (A standard that specifies minimum requirements for carpet underlays is currently being prepared by CEN/TC 134).

3.4

electrostatic discharge sensitive device (ESDS)

discrete device, integrated circuit or assembly that may be damaged by electrostatic fields or electrostatic discharge encountered in routine handling, testing or transit (IEC 61340-5-1)

3.5

electrostatic protected area (EPA)

area in which an ESDS can be handled with accepted risk of damage as a result of electrostatic discharge or fields (IEC 61340-5-1)

3.6

crotch (of stair-tread)

junction of the lower edge of the riser with the rearmost edge

3.7

shading

general description given to a number of optical effects in the appearance of textile floor coverings due to localised alterations in the orientation of the fibres, tufts or loops. This is not a real change in hue, but a difference in light reflection.

Exchange of informationsh STANDARD PREVIEW (standards.iteh.ai)

4.1 General

In order for the correct floor covering to be installed in appropriate conditions, at the right time, etc, it is essential that all parties have a clear understanding of the requirements of the project, e.g. new build or refurbishment, and of the implications for all concerned. To ensure that this is achieved, it is essential that there is wide consultation between all parties involved in the project, including sub-contractors and materials suppliers. This consultation should start early in the design stage but will be necessary throughout the contract, especially should requirements or time scales change and as new sub-contract work is initiated.

As each project will be unique it is impossible to give a definitive list of the information to be exchanged, but typical examples, applying to textile floor coverings as well as to resilient and laminate floor coverings are given in CEN/TS 14472-1.

4.2 Shading

"Shading" (see 3.7) can not be attributed to a fault of manufacture or installation, but architects and specifiers should be aware of this phenomenon in certain styles of carpets.

Materials

5.1 Underlayments

Underlayments may be selected from the following:

- a) cementitious underlayment consisting of a specially formulated blend of cement, binder and fine aggregate. The binder is commonly a natural rubber or synthetic polymer dispersion;
- b) powder/water mixes based on casein/cement or polymer/cement and fine aggregate;

- c) epoxy or other resin compounds (e.g. primer);
- d) compatible underlayments that are available for direct contact with an anhydrite screed.

5.2 Interlays

Interlays may be of the following types:

- a) dry felt paper, manufactured as a thin, flexible sheet, approximately 0,5 mm to 1,0 mm thick;
- b) sheet manufactured from lightweight melded textile material;
- c) sheet manufactured from spun-bonded fibres;
- d) release or delaminateable interlays.

5.3 Carpet underlays

Carpet underlays are defined, described and classified in BS 5808 and work on developing a standard for minimum requirements is in progress in CEN/TC 134. They usually improve the walking comfort, impact sound insulation, thermal insulation, carpet life and smoothing minor surface irregularities of subfloors.

5.4 Textile floor coverings

Different types of floor coverings may require specific methods of installation (see Table 1).

For details of the types of construction, which are available, see ISO 2424. For assistance on the selection of textile floor coverings for various use areas reference should be made to EN 1307, EN 1470 and EN 13297.

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5.5 Adhesives

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5.5.1 General

The adhesive selected should be considered at the design stage because it can influence the performance during installation, in use, or later during removal. The recommendations of the textile floor covering manufacturer should be taken into account, and followed precisely if they are specific as to the type of adhesive which should be used.

Adhesives may be used to enable carpet tiles to be moved without damage, using a semi-permanent or tackifier adhesive, or for the permanent installation of the floor covering. When the textile floor covering is being laid by a method involving total adhesion to the substrate, alone, with a carpet underlay or in a strippable system, the adhesives used should be compatible with both the materials used in the system and the substrate.

Low emission adhesives may be used to meet requirements for internal air quality, during installation or in service.

In addition to installation with liquid adhesives, textile floor coverings may be fixed by the use of double-sided tapes which are normally of the self adhesive type and release systems (net) etc.

Fabric reinforced hot melt tapes can be used for joining or seaming certain types of carpet suitable for installation on grippers.

None of the adhesives can be considered effective as a damp-proof membrane.

5.5.2 Use of adhesive

Recommendations on the suitability of laying various types of textile floor covering using different systems of adhesion are given in 7.8 and Table 1.

A health and safety risk assessment should be made before using any adhesive. Any special requirements such as ventilation, limited access or other appropriate action to protect either the installer or those individually involved should be agreed with the main contractor before installation

The adhesive manufacturer's instructions for the use of the adhesive should be followed, with particular emphasis on the application tool, e.g. notch trowel (including the correct size, shape and number of notches) or roller, or heated iron, the coverage rate and any follow on process, rolling etc.

Conductive adhesives are available for static sensitive areas. These contain carbon black metalised fibres or particles.

6 Subflooors

6.1 General

New subfloors should be constructed in accordance with the recommendations given in the relevant national or European standards.

Those responsible for the design and construction of the subfloor should ensure that it meets the requirements, i.e. should ensure that it has the necessary characteristics to allow the floor covering to be installed successfully before the installer of the floor covering is asked to commence work.

These characteristics include:

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- a) regularity of concrete floors and screens, ai/catalog/standards/sist/7628dc87-f381-4d07-86ce-fc7e0f55be01/sist-ts-cen-ts-14472-2-2003
- b) moisture content of concrete floors and screeds;
- c) integrity of screeds;
- d) making-good of cracks;
- e) treatment of construction joints;
- f) gaps and changes of level;
- g) moisture content of wooden subfloors;
- h) presence of asbestos in an existing floor covering.

General information and guidance on subfloors is given in CEN/TS 14472-1 under the following headings:

- materials;
- details concerning concrete and screed bases;
- moisture content of the subfloor;
- timber bases;
- levelling layer and underlayments;
- existing floor covering.

A typical subfloor construction for a screed on a concrete base is shown in Figure 1 but not all levels represented will be present in all installations. The damp proof membrane may be present either above or below the concrete.

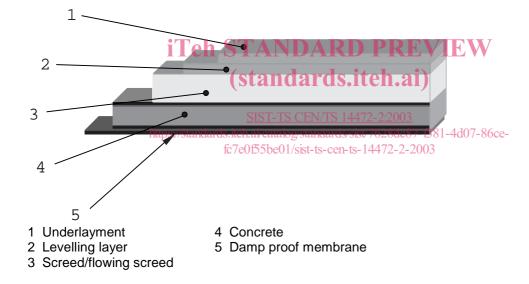


Figure 1 — Layers of subfloor beneath floor coverings

The information on moisture content of the subfloor together with guidance on damp-proofing and eliminating construction moisture is particularly important.

The following subclauses provide additional information and guidance on subfloors of particular relevance to textile floor coverings.

6.2 Board and strip floors

Where plain edged boards or tongued and grooved boards have been nailed to joists or battens, the use of one of the fabricated substrates listed in 6.7 is essential. This will act as a buffer and thereby help to minimize movement in the boards which might affect the appearance of the floor covering.

Uneven timber floors should be levelled by sanding, planing or by patch-filling with a suitable cement underlayment before fabricated underlays are laid. Boarded floors nailed into joists secured by clips set in

concrete or dovetailed battens set in concrete, or boards nailed direct into concrete at ground level should be adequately ventilated and protected by a damp-proof membrane.

6.3 Wood blocks

The laying of textile floor coverings over bases of wood blocks may lead to problems. Any installation should not be attempted unless the wood blocks conform to the following:

- the surface of the wood blocks is clean and free from wax;
- the condition of the floor is such that the blocks are sound and firmly bonded;
- the wood blocks are adequately protected against moisture.

If the textile floor covering is to be totally adhered, consideration should be given to the possibility that the blocks could lift from the subfloor during the life of the floor covering and also when the floor covering is lifted for renewal.

The fixing of fabricated substrates listed in 5.2.1 of CEN/TS 14472-1:2003 may help to provide a smooth level surface. However, it is often found that the action of installing the underlay causes the blocks to fracture, or the wood block adhesive to fail, particularly if it is embrittled by age. Because of the problems, serious consideration should be given to the removal of the wood blocks and repair of the base prior to installation of the textile floor coverings. If any doubts exist regarding any of the conditions set out above, the wood blocks should be removed and the floor screeded or a mastic asphalt floor laid to produce a damp proof membrane.

6.4 Particleboard bases

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6.4.1 General

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General information and guidance on particleboard bases is given in CEN/TS814472-16cc-fc7e0f55be01/sist-ts-cen-ts-14472-2-2003

6.4.2 Particleboard floating floors

It is permissible to sand off any differences in level between adjacent panels up to 1mm. Above this value additional levelling materials should be used.

6.5 Raised floor panels

Raised floor panels may have a textile floor finish permanently bonded on before installation of the panels. In this case the floor covering is generally supplied oversize and then trimmed down to the panel size after the adhesive has fully set.

For carpet tiles installed after the raised floor is in place, the following are examples of the most used methods.

EXAMPLE 1 Carpet tiles installed by the use of a release adhesive (tackifier) either applied directly to the middle of the raised floor panel or to the back of the carpet tile by the use of a brush or paint roller. Care needs to be taken to avoid adhesive going between the gaps in adjacent panels, which can lead to floor panels being difficult to lift without damage.

EXAMPLE 2 Carpet tiles installed by locating devices on the carpet tiles and panel such as pin and socket, hook and loop strips or magnetic strips on the back of the tile in the case of steel surfaced raised panel.

It should be noted that even with 600 mm x 600 mm panels and 600 mm x 600 mm carpet tiles it is impossible to keep in bond due to different manufacturing tolerances (and differing, thermal changes) between textile carpet tiles and raised floor panels.