

BS 8203:2017



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Installation of resilient floor coverings – Code of practice

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Foreword

Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 31 March 2017. It was prepared under the authority of Technical Committee PRI/60, *Resilient and Laminate Floor Coverings*. A list of organizations represented on this committee can be obtained on request to their secretary.

Supersession

This British Standard supersedes BS 8203:2001+A1:2009, which is withdrawn.

Use of this document

As a code of practice, this British Standard takes the form of guidance and recommendations.

It should not be quoted as if it were a specification and particular care should be taken to ensure that claims of compliance are not misleading.

Any user claiming compliance with this British Standard is expected to be able to justify any course of action that deviates from its recommendations.

Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its recommendations are expressed in sentences in which the principal auxiliary verb is “should”.

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

The word “should” is used to express recommendations of this standard. The word “may” is used in the text to express permissibility, e.g. as an alternative to the primary recommendation of the clause. The word “can” is used to express possibility, e.g. a consequence of an action or an event.

Notes and commentaries are provided throughout the text of this standard. Notes give references and additional information that are important but do not form part of the recommendations. Commentaries give background information.

Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

1 Scope

This British Standard gives recommendations for the installation of the following floor coverings on both new and existing construction:

- a) cork floor coverings;
- b) linoleum floor coverings;
- c) plastic floor coverings; and
- d) rubber floor coverings.

NOTE Special measures are necessary for successful installation of floor coverings such as those used for static control, and are not included in this British Standard.

This British Standard does not cover the installation of these floor coverings on access flooring.

This British Standard does not include advice on cleaning and maintenance (for which, see BS 6263-2) but does include guidance on the decisions made at the design stage which assist cleaning and maintenance and enable the installation to give satisfactory service.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS 6263-2, *Care and maintenance of floor surfaces – Part 2: Code of practice for resilient sheet and tile flooring*

BS 8103-3, *Structural design of low-rise buildings – Part 3: Code of practice for timber floors and roofs for housing*

BS 8204-1, *Screeds, bases and in-situ floorings – Part 1: Concrete bases and cementitious levelling screeds to receive floorings – Code of practice*

BS 8204-5, *Screeds, bases and in-situ floorings – Part 5: Mastic asphalt underlays and wearing surfaces – Code of practice*

BS 8204-7, *Screeds, bases and in-situ floorings – Part 7: Pumpable self-smoothing screeds – Code of practice*

BS EN 204, *Classification of thermoplastic wood adhesives for non-structural applications*

BS EN 300, *Oriented strand boards (OSB) – Definitions, classification and specifications*

BS EN 312, *Particleboards – Specifications*

BS EN 350, *Durability of wood and wood-based products – Testing and classification of the durability to biological agents of wood and wood-based materials*

BS EN 622-2, *Fibreboards – Specifications – Part 2: Requirements for hardboards*

BS EN 635-2:1995, *Plywood – Classification by surface appearance – Part 2: Hardwood*

BS EN 636, *Plywood – Specifications*

BS EN 650, *Resilient floor coverings – Polyvinyl chloride floor coverings on jute backing or on polyester felt backing or on polyester felt with polyvinyl chloride backing – Specification*

BS EN 651, *Resilient floor coverings – Polyvinyl chloride floor coverings with foam layer – Specification*

- BS EN 652, *Resilient floor coverings – Polyvinyl chloride floor coverings with cork-based backing – Specification*
- BS EN 655, *Resilient floor coverings – Tiles of agglomerated composition cork with polyvinyl chloride wear layer – Specification*
- BS EN 686, *Resilient floor coverings – Specification for plain and decorative linoleum on a foam backing*
- BS EN 687, *Resilient floor coverings – Specification for plain and decorative linoleum on a corkment backing*
- BS EN 688, *Resilient floor coverings – Specification for corklinoleum*
- BS EN 1816, *Resilient floor coverings – Specification for homogeneous and heterogeneous smooth rubber floor coverings with foam backing*
- BS EN 1817, *Resilient floor coverings – Specification for homogeneous and heterogeneous smooth rubber floor coverings*
- BS EN 12104, *Resilient floor coverings – Cork floor tiles – Specification*
- BS EN 12199, *Resilient floor coverings – Specifications for homogeneous and heterogeneous relief rubber floor coverings*
- BS EN 13845, *Resilient floor coverings – Polyvinyl chloride floor coverings with particle based enhanced slip resistance – Specification*
- BS EN 13986:2004+A1:2015, *Wood-based panels for use in construction – Characteristics, evaluation of conformity and marking*
- BS EN 14085, *Resilient floor coverings – Specification for floor panels for loose laying*
- BS EN 14565, *Resilient floor coverings – Floor coverings based upon synthetic thermoplastic polymers – Specification*
- BS EN 14904, *Surfaces for sports areas – Indoor surfaces for multi-sports use – Specification*
- BS EN ISO 10581, *Resilient floor coverings – Homogeneous poly(vinyl chloride) floor covering – Specifications*
- BS EN ISO 10582, *Resilient floor coverings – Heterogeneous Poly(vinyl chloride) floor coverings – Specification*
- BS EN ISO 10595, *Resilient floor coverings – Semi-flexible/vinyl composition (VCT) poly(vinyl chloride) floor tiles – Specification*
- BS EN ISO 24011, *Resilient floor coverings – Specification for plain and decorative linoleum*
- BS EN ISO 26986, *Resilient floor coverings – Expanded (cushioned) poly(vinyl chloride) floor covering – Specification*

3 Terms and definitions

For the purposes of this British Standard, the terms and definitions given in BS 6100 (all parts) and the following apply.

3.1 agglomerated composition cork

compound of cork granules with a binder generally not derived for cork cells

3.2 agglomerated composition cork with polyvinyl chloride wear layer

floor covering whose main component is agglomerated cork and whose wear layer is a homogeneous polyvinyl chloride layer

3.3 base

supporting structure to which the floor covering is to be applied

3.4 concrete base

concrete slab cast as part of the building construction

3.5 cork floor covering

floor covering whose main component is agglomerated cork and whose wear layer is intended to be used with a finishing coat(s)

3.6 cork linoleum

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

3.7 corkment

product produced by a homogeneous mixture of linoleum cement, granulated cork, pigment and inorganic fillers on a fibrous backing

3.8 fabricated underlay

wood-based panel applied to a subfloor/base/floating floor to provide a smooth, even surface suitable for the installation of a floor covering

3.9 flexible

generic term for floor coverings which can be bent over a mandrel under specified conditions

3.10 floor covering

product prefabricated in sheet or tile form, which can be used to cover floors from wall to wall

3.11 in situ underlay

aggregate filled underlay based on mastic asphalt or specially formulated cement and binder that is applied over cementitious and similar bases to provide a smooth, even surface

3.12 levelling screed

screed finished to obtain a defined level and to receive the final flooring

3.13 linoleum

product produced by calendering a homogeneous mixture of linoleum cement, cork- and/or wood-flour, pigments and inorganic filler onto a fibrous backing

3.14 linoleum cement

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

3.15 nosing

metal or plastic finishing profile protecting the edge of a stair nose

3.16 plastic floor covering

vinyl sheet or tile floor coverings

3.17 polyvinyl chloride floor covering

floor covering with surface layers produced using polyvinyl chloride (and modifications thereof) as binder

NOTE Polyvinyl chloride floor coverings include the following:

- a) *expanded polyvinyl chloride floor covering (cushioned polyvinyl chloride), with a transparent wear layer over a layer of foamed polyvinyl chloride carrying a printed pattern, which can be embossed in register with the printed pattern;*
- b) *polyvinyl chloride floor covering on jute backing, consisting of a polyvinyl chloride layer applied to a jute felt backing;*
- c) *polyvinyl chloride floor covering on polyester backing, consisting of a polyvinyl chloride surface layer applied to a polyester felt backing;*
- d) *polyvinyl chloride floor covering on polyester felt with polyvinyl chloride backing, consisting of a polyvinyl chloride surface layer applied to a polyester felt with a polyvinyl chloride backing;*
- e) *polyvinyl chloride floor covering with cork-based backing, consisting of a homogeneous or heterogeneous polyvinyl chloride surface layer over a layer of corkment (see 3.7) or of cork with a polyvinyl chloride binder; and*
- f) *semi flexible polyvinyl chloride floor covering, consisting of tiles made from polyvinyl chloride (and modifications thereof) which can only be deflected under specified conditions.*

3.18 primer

liquid product applied to a subfloor, or base, prior to the application of either smoothing compound or adhesive, to seal a porous base and aid adhesion of the subsequent application

3.19 resilient

material able to recover after compression

NOTE For example plastic, rubber, cork or linoleum.

3.20 riser

vertical part of a step

3.21 rubber floor covering

floor covering in sheets or tiles, based on natural or synthetic rubber

3.22 screed

cement and sand or calcium sulphate topping applied over the base and finished to receive the floor covering

3.23 smoothing compound

see smoothing underlayment ([3.24](#))

3.24 smoothing underlayment

smoothing and or self smoothing compound applied to a subfloor to achieve a smooth, flat or level surface, suitable for the installation of the floor covering

3.25 subfloor

see base ([3.3](#))

3.26 surface damp-proof membrane

material applied to the surface of the subfloor to control the passage of water vapour

3.27 surface preparation

set of operations carried out on the subfloor to allow the floor covering to be laid correctly

3.28 transition strip

finishing element which helps to protect a junction between two floor coverings which could be different in type or thickness

3.29 tread

horizontal part of a step

3.30 underlay

layer applied to the subfloor to achieve a smooth, flat or level surface

3.31 underlayment

see smoothing underlayment ([3.24](#))

3.32 vinyl

term commonly used to describe polyvinyl chloride

3.33 welding

formation of a sealed joint between sheets or tiles

4 Exchange of information**4.1 General**

In order for the correct floor covering to be installed in appropriate conditions, at the required time, etc., all parties should 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, there should be consultation between all parties involved in the project, including sub-contractors and material suppliers.

This consultation should start early in the design stage but is necessary throughout the contract, especially should requirements or time scales change and as new sub-contract work is initiated.

NOTE As each project is unique it is impossible to give a definitive list of the information to be exchanged, but [4.2](#) to [4.11](#) are typical examples.

4.2 Project

The name and location of projects and personnel involved in pre-contract negotiations should be identified.

4.3 Design

The floor layout, and specifications, based on building type and occupational uses should be provided, e.g.:

- a) type and density of foot and/or wheeled traffic;
- b) resilience characteristics;
- c) acoustic absorption levels; and

- d) particulars of wet, corrosive, staining or potentially abrasive conditions.

4.4 Floor details

The completed drawings/specification should provide comprehensive information on:

- a) whether upper floor, ground floor or below ground level;
- b) whether ground-supported or suspended construction;
- c) particulars of any underfloor heating installation or security installation;
- d) position and treatment of movement joints;
- e) curing and drying times of screeds and bases likely to be required before the installation of floor coverings;
- f) screed or based with finished floor level, permissible departure from datum and class of surface regularity required;
- g) in refurbishment work, the type and condition of existing base or floor finish and any type of treatment required;
- h) type of damp-proof membrane and position within the floor construction, in particular, the need for surface-applied membrane where likely drying times for the base exceed time available in the programme;
- i) choice of underlay, underlayments and adhesives, or special requirements, e.g. seam welding and direction of material; and
- j) size, position and design of entrance flooring systems.

4.5 Entrance floor systems

COMMENTARY ON 4.5

Entrance flooring systems reduce the dirt, grit and water carried into the building by foot traffic, hence reducing the risk of slipping when the building is in service.

The size, position and design of entrance flooring systems should be considered at the design stage (see BS 7953).

4.6 Associated details

Details of abutments, skirtings, services (embedded or sleeved), movement joints, separating strips, pattern or border details and junctions with other adjacent flooring and door clearances should be provided.

4.7 Contract conditions

A programme for commencement and completion of work should be defined, including any specific requirement for sequenced completion [see especially 4.4 e)].

4.8 Special attendance

Access, unloading, hoisting and storage facilities, heat, light and power and any additional items considered necessary to expedite the work should be provided.

4.9 Testing

For any conformity testing of the base, screed, floor covering, etc. details should be provided and responsibilities defined.

The responsibility for ensuring that bases or screeds meet the specified standards for level, smoothness, dryness and soundness (impact crushing resistance) should be defined before any

subsequent or finishing trades are called to commence work. This should be the responsibility of the main contractor unless otherwise specified.

4.10 Responsibilities

Responsibilities for cleaning the construction on completion and providing initial protection should be defined.

4.11 Maintenance

Clear written instructions on the recommended maintenance methods appropriate for the various floor coverings should be provided for the occupier (see BS 6263-2).

NOTE Attention is drawn to the Construction (Design and Management) Regulations 2015 [1] with regard to duties and responsibilities.

5 Materials

5.1 Underlays

COMMENTARY ON 5.1

Guidance on the selection and use of underlays appropriate to the various floor coverings and bases is given in 6.7, 6.8 and 6.9.

NOTE Proprietary loose lay and floating underlay systems are not within the scope of this British Standard. Where such systems are being considered, advice is to be obtained from both the underlay/system and floor covering manufacturer in relation to the system's suitability and application.

5.1.1 Fabricated underlays

Fabricated underlays conforming to BS EN 13986 should be selected from the following:

- a) plywood conforming to BS EN 636 and Annex A (see 6.7.2); and
- b) hardboard Type HB.H (oil tempered) conforming to BS EN 622-2.

5.1.2 In situ underlays

In situ underlays should be selected from the following:

- a) mastic asphalt conforming to grade 1 of BS 8204-5; and
- b) cementitious underlay consisting of a specially formulated blend of cement and binder and both fine and coarse aggregates.

NOTE The binder is commonly a natural rubber latex or synthetic polymer.

5.1.3 Underlayments

Underlayments should be selected from the following:

- a) cementitious underlayment consisting of a specially formulated blend of cement, binder and fine aggregate;

NOTE The binder is commonly a natural rubber or synthetic polymer dispersion.

- b) powder/water mixes based on casein/cement or polymer and fine aggregate; and
- c) epoxy or other resin compounds.