BS 7533-101:2021

BSI Standards Publication

Pavements constructed with clay, concrete or natural stone paving units

Part 101: Code of practice for the structural design of pavements using modular paving units

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Contents

Summary of pages
This document comprises a front cover, an inside front cover, pages I to VI, pages 1 to 82, an inside back cover and a back cover.

Foreword

Publishing information

This part of BS 7533 is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 31 August 2021. It was prepared by Technical Committee B/507, *Paving units, kerbs, screeds and in-situ floorings*. A list of organizations represented on this committee can be obtained on request to its committee manager.

Supersession

This part of BS 7533 supersedes BS 7533-1:2001, BS 7533-2:2001, BS 7533-8:2003, BS 7533-10:2010 and BS 7533-12:2006, which are withdrawn. This part of BS 7533 also partially supersedes BS 7533-6:1999 and BS 7533-7:2010.

Relationship with other publications

BS 7533 is published in the following parts:

- Part 101: *Code of practice for the structural design of pavements using modular paving units;*
- Part 102: *Code of practice for the construction and maintenance of pavements using modular paving units*[1)]; and
- Part 13: *Guide for the design of permeable pavements constructed with concrete paving blocks and flags, natural stone slabs and setts and clay pavers.*

Information about this document

This is a full revision of the BS 7533 series, in which the principal change is to reduce 12 parts of the series to 3 parts. The following principal changes have been made:

- the combination of information on the structural design of rigid and flexible pavements (now retitled "bound and unbound pavements"), using concrete, clay and stone paving units, from the following parts of the withdrawn series:
  - Part 1: *Guide for the structural design of heavy duty pavements constructed of clay pavers or precast concrete paving blocks;*
  - Part 2: *Guide for the structural design of lightly trafficked pavements constructed of clay pavers or precast concrete paving blocks;*
  - Part 8: *Guide for the structural design of lightly trafficked pavements of precast concrete flags and natural stone slabs;*
  - Part 10: *Guide for the structural design of trafficked pavements constructed of natural stone setts and bound construction with concrete paving blocks;*
  - Part 12: *Guide to the structural design of trafficked pavements constructed on a bound base using concrete paving flags and natural stone slabs;*
- the removal of repetition between the parts of BS 7533 listed above;
- updating of references and test methods; and,
- clarification and removal of ambiguity and anomalies.

1) In preparation

This publication can be withdrawn, revised, partially superseded or superseded. Information regarding the status of this publication can be found in the Standards Catalogue on the BSI website at bsigroup.com/standards, or by contacting the Customer Services team.

Where websites and webpages have been cited, they are provided for ease of reference and are correct at the time of publication. The location of a webpage or website, or its contents, cannot be guaranteed.

Use of this document

As a code of practice, this British Standard takes the form of recommendations and guidance. It is not to be quoted as if it were a specification. Users are expected to ensure that claims of compliance are not misleading.

Users may substitute any of the recommendations in this British Standard with practices of equivalent or better outcome. 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.

Where words have alternative spellings, the preferred spelling of the Shorter Oxford English Dictionary is used (e.g. "organization" rather than "organisation").

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1 Scope

This British Standard provides recommendations and guidance on the design of pavements surfaced with:

a) concrete paving blocks produced in accordance with BS EN 1338;

b) concrete paving flags produced in accordance with BS EN 1339;

c) natural stone slabs produced in accordance with BS EN 1341;

d) natural stone setts produced in accordance with BS EN 1342;

e) clay pavers produced in accordance with BS EN 1344;

constructed in accordance with BS 7533-3, BS 7533-4, BS 7533-7, BS 7533-9[2)].

It also provides guidance on the use of:

1) concrete kerbs produced in accordance with BS EN 1340; and

2) natural stone kerbs produced in accordance with BS EN 1343;

constructed in accordance with BS 7533-6[2].

It applies to areas subject to pedestrian and vehicular loading permissible under The Road Vehicles (Construction and Use) Regulations 1986 [1] with axle loads up to 11 000 kg and a cumulative design traffic of up to 30 million standard axles (msa).

It specifically excludes design traffic above the specified maximum and areas of higher vehicle loading such as aircraft pavements and those in ports and specialized industrial areas.

NOTE 1 Specialist engineering guidance is advised when considering the use of modular paving in applications not covered by this standard.

NOTE 2 Due to historic precedent, it might be preferred to use paving units which are outside the dimensions of the EN standards.

NOTE 3 This standard does not address the specific requirements for applications of tactile paving or other assistance devices. Pedestrian access paving needs to be designed to include appropriate tactile indicators as required by current standards and legislation.

The design of permeable pavements which collect, attenuate and provide a drainage feature are not within the scope of this standard. Refer to BS 7533-13.

Reused materials may be used provided they meet the recommendations of the appropriate clause(s).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes provisions 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.

Standards publications

BS 1377-4, *Methods of test for soils for civil engineering purposes – Part 4: Compaction-related tests*

BS 7533-3, *Pavements constructed with clay, natural stone or concrete pavers – Part 3: Code of practice for laying precast concrete paving blocks and clay pavers for flexible pavements*

2) These parts of BS 7533 are expected to be merged into the new BS 7533-102, which is currently in preparation.