

This is a preview of "BS EN 13108-7:2016". [Click here to purchase the full version from the ANSI store.](#)

BS EN 13108-7:2016



BSI Standards Publication

Bituminous mixtures — Material specifications

Part 7: Porous Asphalt

bsi.

This is a preview of "BS EN 13108-7:2016". [Click here to purchase the full version from the ANSI store.](#)

This British Standard is the UK implementation of EN 13108-7:2016. It supersedes BS EN 13108-7:2006 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee B/510/1, Asphalt products.

A list of organizations represented on this committee can be obtained on request to its secretary.

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

© The British Standards Institution 2016.
Published by BSI Standards Limited 2016

ISBN 978 0 580 82049 6

ICS 93.080.20

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

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 June 2016.

Amendments/corrigenda issued since publication

Date	Text affected
------	---------------

This is a preview of "BS EN 13108-7:2016". [Click here to purchase the full version from the ANSI store.](#)

EUROPÄISCHE NORM

June 2016

ICS 93.080.20

Supersedes EN 13108-7:2006

English Version

Bituminous mixtures - Material specifications - Part 7: Porous Asphalt

Mélanges bitumineux - Spécifications pour le matériau
- Partie 7: Bétons bitumineux drainants

Asphaltmischgut - Mischgutanforderungen - Teil 7:
Offenporiger Asphalt

This European Standard was approved by CEN on 27 February 2016.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents	Page
European foreword.....	4
Introduction	6
1 Scope	7
2 Normative references	7
3 Terms and definitions, symbols and abbreviations	8
3.1 Terms and definitions	8
3.2 Symbols and abbreviations	10
4 Requirements for constituent materials	10
4.1 General.....	10
4.2 Binder.....	10
4.2.1 General.....	10
4.2.2 Selection of binder	11
4.3 Aggregates	12
4.3.1 Coarse aggregate	12
4.3.2 Fine aggregate	12
4.3.3 All-in aggregates.....	12
4.3.4 Added filler.....	12
4.4 Reclaimed asphalt.....	12
4.5 Additives.....	12
5 Requirements for the mixture.....	13
5.1 General.....	13
5.2 Composition, grading, binder content.....	13
5.2.1 Composition	13
5.2.2 Grading.....	13
5.2.3 Minimum binder content	15
5.3 Properties	16
5.3.1 Specimens	16
5.3.2 Drainage capacity.....	16
5.3.3 Resistance to permanent deformation.....	18
5.3.4 Water sensitivity	22
5.3.5 Particle loss	23
5.3.6 Low temperature properties	24
5.3.7 Friction after polishing	25
5.3.8 Coating and homogeneity.....	25
5.3.9 Reaction to fire.....	25
5.3.10 Binder drainage.....	25
5.3.11 Resistance to fuel for application on airfields	26
5.3.12 Resistance to de-icing fluid for application on airfields	27
5.3.13 Bitumen aggregate affinity for application on airfields.....	27
5.4 Temperature of the mixture	28
5.5 Regulated dangerous substances.....	28
5.6 Conflicting requirements	29
6 Assessment and verification of constancy of performance — AVCP	29

This is a preview of "BS EN 13108-7:2016". [Click here to purchase the full version from the ANSI store.](#)

7	Identification	29
	Annex A (normative) Calculations of the penetration or the softening point of the binder of a mixture when reclaimed asphalt is used	31
A.1	General	31
A.2	Calculation of the penetration of the binder of a mixture	31
A.3	Calculation of the softening point of the binder of a mixture	31
	Annex ZA (informative) Relationship of this European Standard with Regulation (EU) No. 305/2011	33
ZA.1	Scope and relevant characteristics	33
ZA.2	System of Assessment and Verification of Constancy of Performance (AVCP)	35
ZA.3	Assignment of AVCP tasks	35

This is a preview of "BS EN 13108-7:2016". [Click here to purchase the full version from the ANSI store.](#)

European foreword

This document (EN 13108-7:2016) has been prepared by Technical Committee CEN/TC 227 "Road materials", the secretariat of which is held by DIN.

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 2016, and conflicting national standards shall be withdrawn at the latest by March 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 13108-7:2006.

This European standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of Regulation (EU) No 305/2011 for construction products (CPR).

For relationship with Regulation (EU) No 305/2011 see informative Annex ZA which is an integral part of this European standard.

Compared with EN 13108-7:2006, the following changes have been made:

- a) new properties introduced (resistance to deformation, low temperature properties, friction after polishing);
- b) additional optional sieves for the characterization of the grading;
- c) for several properties additional categories are introduced;
- d) possibility to define specific conditions in documents related to the application of the product;
- e) CPR reference and new Annex ZA according to CPR rules.

This European Standard is one of a series as listed below:

- EN 13108-1, *Bituminous mixtures — Material specifications — Part 1: Asphalt Concrete*
- EN 13108-2, *Bituminous mixtures — Material specifications — Part 2: Asphalt Concrete for Very Thin Layers (BBTM)*
- EN 13108-3, *Bituminous mixtures — Material specifications — Part 3: Soft Asphalt*
- EN 13108-4, *Bituminous mixtures — Material specifications — Part 4: Hot Rolled Asphalt*
- EN 13108-5, *Bituminous mixtures — Material specifications — Part 5: Stone Mastic Asphalt*
- EN 13108-6, *Bituminous mixtures — Material specifications — Part 6: Mastic Asphalt*
- EN 13108-7, *Bituminous mixtures — Material specifications — Part 7: Porous Asphalt*
- EN 13108-8, *Bituminous mixtures — Material specifications — Part 8: Reclaimed Asphalt*

This is a preview of "BS EN 13108-7:2016". [Click here to purchase the full version from the ANSI store.](#)

- EN 13108-9, *Bituminous mixtures — Material specifications — Part 9: Asphalt for Ultra-Thin Layer (AUTL)*
- EN 13108-20, *Bituminous mixtures — Material specifications — Part 20: Type Testing*
- EN 13108-21, *Bituminous mixtures — Material specifications — Part 21: Factory Production Control*

Annex A (normative) details the calculation of the penetration or the softening point in mixtures containing reclaimed asphalt from the penetrations or softening points of the added binder and the recovered binder from the reclaimed asphalt.

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

This is a preview of "BS EN 13108-7:2016". [Click here to purchase the full version from the ANSI store.](#)

Introduction

The aim of this European Standard is to enable specification of Porous Asphalt mixtures on a performance basis. In general, however, there are currently more empirical tests available to describe the mixtures. Depending on the experience with the combination of requirements in this European standard more or less degrees of freedom for the producer may be given.

This European Standard covers a large variety of materials for different applications, traffic and climate conditions. EN 13108-7 gives properties and listings of possible categories. It has to accommodate the road industry for all of Europe. For this reason the menu approach for properties has been chosen. The tables represent categories that are required all over Europe. For this reason numerical values in Tables do not always obey statistical rules. Based on conditions of use specific properties and categories may be defined in documents related to the application of the product. The categories defined in those documents need to take into account the reproducibility of the test when this is given in the appropriate test method.

Care should be taken to only select those tests which are relevant to the application of the asphalt and the use of the pavement and to avoid a combination of potentially conflicting requirements.

This is a preview of "BS EN 13108-7:2016". [Click here to purchase the full version from the ANSI store.](#)

1 Scope

This European Standard specifies requirements for mixtures of the mix group Porous Asphalt for use on roads, airfields and other trafficked areas. Porous Asphalt is used for surface courses. Porous Asphalt can be laid in more than one layer.

The mixtures of the mix group Porous Asphalt are produced on the basis of hot bitumen. Mixtures utilizing bitumen emulsion and bituminous materials based on *in situ* recycling are not covered by this standard.

This European Standard includes requirements for the selection of the constituent materials. It is designed to be read in conjunction with EN 13108-20 and EN 13108-21.

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.

EN 1097-6:2013, *Tests for mechanical and physical properties of aggregates — Part 6: Determination of particle density and water absorption*

EN 1426, *Bitumen and bituminous binders — Determination of needle penetration*

EN 1427, *Bitumen and bituminous binders — Determination of the softening point — Ring and Ball method*

EN 12591, *Bitumen and bituminous binders — Specifications for paving grade bitumens*

EN 12697 (all parts), *Bituminous mixtures — Test methods for hot mix asphalt*

EN 13043, *Aggregates for bituminous mixtures and surface treatments for roads, airfields and other trafficked areas*

EN 13108-4:2016, *Bituminous mixtures — Material specifications — Part 4: Hot Rolled Asphalt*

EN 13108-8, *Bituminous mixtures — Material specifications — Part 8: Reclaimed asphalt*

EN 13108-20:2016, *Bituminous mixtures — Material specifications — Part 20: Type Testing*

EN 13108-21, *Bituminous mixtures — Material specifications — Part 21: Factory Production Control*

EN 13501-1:2007+A1:2009, *Fire classification of construction products and building elements — Part 1: Classification using data from reaction to fire tests*

EN 13924-1, *Bitumen and bituminous binders — Specification framework for special paving grade bitumen — Part 1: Hard paving grade bitumens*

EN 13924-2, *Bitumen and bituminous binders — Specification framework for special paving grade bitumen — Part 2: Multigrade paving grade bitumens*

EN 14023, *Bitumen and bituminous binders — Specification framework for polymer modified bitumens*