

ASFALTSEGUD. MATERJALIDE SPETSIFIKATSIOONID.  
OSA 21: TEHASE TOOTMISOHJE

Bituminous mixtures - Material specifications - Part 21:  
Factory Production Control

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 13108-21:2016 sisaldab Euroopa standardi EN 13108-21:2016 ingliskeelset teksti.	This Estonian standard EVS-EN 13108-21:2016 consists of the English text of the European standard EN 13108-21:2016.
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English Version

## Bituminous mixtures - Material specifications - Part 21: Factory Production Control

Mélanges bitumineux - Spécifications pour le matériau  
- Partie 21: Contrôle de la production en centrale

Asphaltmischgut - Mischgutanforderungen - Teil 21:  
Werkseigene Produktionskontrolle

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

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
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## European foreword

This document (EN 13108-21:2016) 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of an identical text or by endorsement, at the latest by December 2016, and conflicting national standards shall be withdrawn at the latest by March 2018.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 13108-21:2006.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

Compared with EN 13108-21:2006, the following changes have been made:

- a) update to align with other parts of EN 13108 series, test methods and CPR requirements;
- b) new guidance on non-conforming product, as part of FPC, and system non-compliance on audit;
- c) “constancy of performance” generally replaces “conformity of product”;
- d) split Table A.1 into two Tables A.1 and A.2, for clarity – correct tolerances for HRA mixtures;
- e) clarify “additional characteristic” sieves for DoP purposes and “optional” sieves for FPC;
- f) incorporate multi-plant, single FPC system approach for audit;
- g) previous (informative) Annex C deleted.

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*

- 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*

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.

## Introduction

This European Standard has been written as part of the system for the Assessment and Verification of Constancy of Performance (AVCP) of bituminous mixtures. It is designed to be used in conjunction with the product standards EN 13108-1 to -7 and EN 13108-9 and is called up by these standards as part of AVCP.

The Factory Production Control procedure is designed to be applied to European Standards for bituminous mixture whether or not regulatory marking is to be applied.

AVCP comprises Determination of Product Type (DPT) and Factory Production Control (FPC). The existing terminology for Determination of Product Type – Type Testing – is the terminology adopted in this Standard, and as retained in the companion Standard, EN 13108-20. This European Standard has been written to provide the basis for quality and conformity control and as part of the system for the AVCP of bituminous mixture. When the appropriate clauses are applied it forms part of the system for AVCP as required by the Construction Products Regulation. It provides the minimum level of FPC for CE Marking.

For commercial and/or contractual reasons manufacturers can choose to carry out more testing and inspection.

The system in this European Standard builds mainly upon traditional sampling and testing of constituent materials and finished product. Processes as well as process control systems are continuously being developed which means that new systems for Factory Production Control will be introduced and implemented. If a manufacturer is able to demonstrate that his process control system is able to secure the fulfilment of the requirements on the finished products in a satisfactory way then alternative minimum frequencies of inspection and testing may be acceptable.

Alternative test methods to those referred to in EN 13108-20 may be used for Factory Production Control if a correlation can be identified with the tests used for type testing.

The basis of this European Standard is that of the control of constituents, composition and mixing by regular sampling and inspection. It does not involve the routine monitoring of the performance properties of the bituminous mixture. Periodic revalidation of these properties is dealt with separately in EN 13108-20.

Frequencies and tolerances for testing of product for assessment of Constancy of Performance are given in Annex A.

The tasks for evaluating the FPC as part of AVCP are defined in Annex B.



## 1 Scope

This European Standard specifies both quality and Factory Production Control requirements for use during the manufacture of bituminous mixtures intended for use on roads, airfields and other trafficked areas.

Additional testing carried out within contracts is beyond the scope of this European Standard.

The Factory Production Control will be applied to European Standards for bituminous mixtures if CE-marking under CPR is applied. It may also be part of quality control in situations where CE-marking does not apply. As such, manufacturers factories' notified to issue CE Marking for production of bituminous mixtures should not require duplicate or additional auditing for those situations where CE-marking does not apply.

This European Standard is applicable to the control of bituminous mixture where the constituents and target composition are known, and have been shown by means of Type Testing to comply with all appropriate specified compositional, performance related or performance based requirements in EN 13108-1 to -7 and EN 13108-9.

## 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 12697-27, *Bituminous mixtures — Test methods for hot mix asphalt — Part 27: Sampling*

EN 12697-28, *Bituminous mixtures — Test methods for hot mix asphalt — Part 28: Preparation of samples for determining binder content, water content and grading*

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

EN 13108-6, *Bituminous mixtures — Material specifications — Part 6: Mastic Asphalt*

## 3 Terms and definitions

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

### 3.1

#### **Factory Production Control**

##### **FPC**

documented, permanent and internal control of production in a factory, in accordance with the relevant harmonized technical specifications

### 3.2

#### **technical specifications**

harmonized European Standards and European Technical Approvals for bituminous mixtures

### 3.3

#### **organoleptic check**

evaluation made with the senses: sight, touch, smell, hearing, etc