

**Bituumen ja bituumensideained. Katioonsete bituumenemulsioonide määratlemise alused**

**Bitumen and bituminous binders - Framework for specifying cationic bituminous emulsions**

## EESTI STANDARDI EESSÕNA

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English Version

## Bitumen and bituminous binders - Framework for specifying cationic bituminous emulsions

Bitumes et liants bitumineux - Cadre de spécifications pour  
les émulsions cationiques de liants bitumineux

Bitumen und bitumenhaltige Bindemittel - Rahmenwerk für  
die Spezifizierung kationischer Bitumenemulsionen

This European Standard was approved by CEN on 14 March 2013.

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.

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## Foreword

This document (EN 13808:2013) has been prepared by Technical Committee CEN/TC 336 "Bituminous binders", the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by November 2013, and conflicting national standards shall be withdrawn at the latest by May 2014.

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 13808:2005, EN 14733:2005+A1:2010.

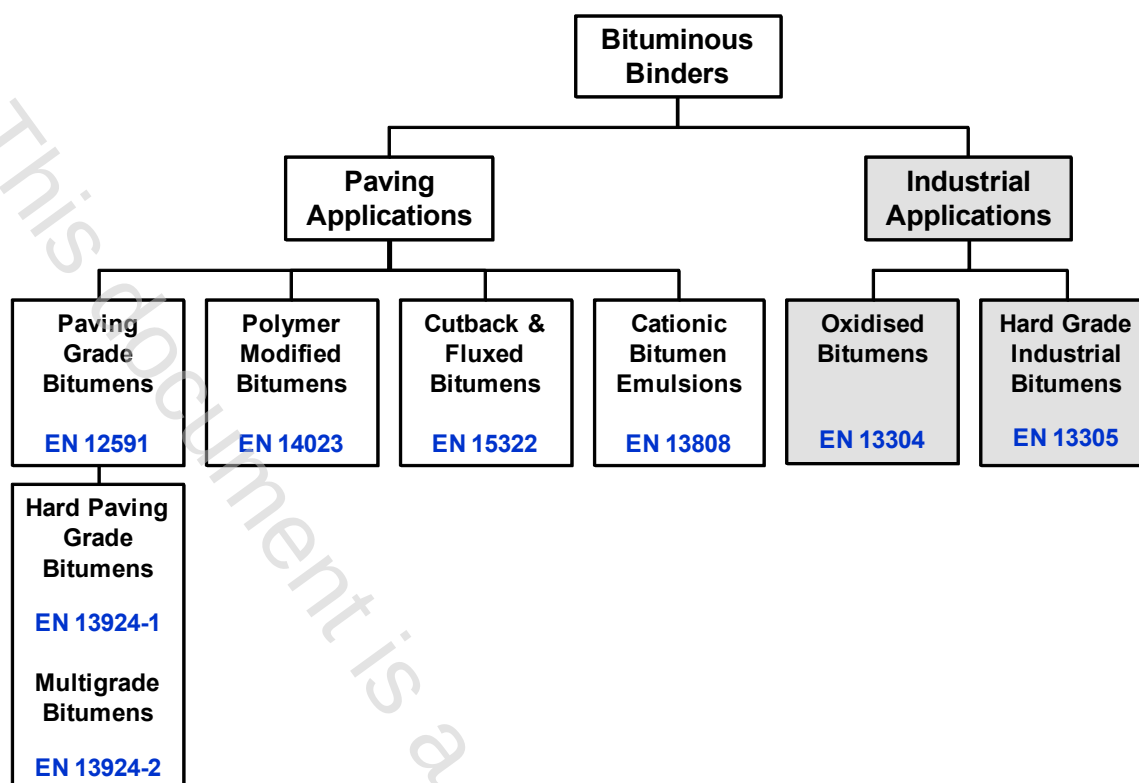
This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports basic work requirements of the EU Regulation.

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

The main technical changes brought to EN 13808 are as follows:

- introduction of additional characteristics and revision of performance classes for cationic bituminous emulsions (Table 2);
- consideration of the characteristics of the residual binder by distillation (Tables 3 and 4);
- possibility to assess durability on either a stabilised binder (stage 1 of durability) or on a stabilised and PAV aged binder (stage 2 of durability) or on both types of binders (Tables 3 and 4);
- rewriting of Clause 6 (Assessment and Verification of the Constancy of Performance - AVCP) and Annex ZA in accordance with the requirements of Regulation (EU) 305/2011 (Construction Products Regulation-CPR);
- incorporation of the clauses on AVCP previously covered by EN 14733:2005+A1:2010.

This standard is part of a family of European Standards for bitumens as follows:



**Figure 1 — European Standards for bitumens**

According to the CEN-CENELEC Internal Regulations, the national standards organisations 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.

## 1 Scope

This European Standard specifies the requirements for performance characteristics of cationic bituminous emulsion classes which are suitable for use in the construction and maintenance of roads, airfields and other paved areas.

This European Standard applies to emulsions of bitumen, or of fluxed bitumen, or of cut back bitumen and to emulsions of polymer modified bitumen, or of polymer modified fluxed bitumen, or of polymer modified cut-back bitumen, which also includes latex modified bituminous emulsions.

Within Europe several types of cationic bituminous emulsions are used. Depending on traditional practices, different binder contents may be used for the same purpose. When designing a specification for a particular application, care should be taken to make class selections which are compatible and realistic.

NOTE For the purposes of this European Standard, the term “% (m/m)” is used to represent the mass fraction.

## 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 58, *Bitumen and bituminous binders — Sampling bituminous binders*

EN 1425, *Bitumen and bituminous binders — Characterization of perceptible properties*

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 1428, *Bitumen and bituminous binders — Determination of water content in bitumen emulsions — Azeotropic distillation method*

EN 1429, *Bitumen and bituminous binders — Determination of residue on sieving of bituminous emulsions, and determination of storage stability by sieving*

EN 1430, *Bitumen and bituminous binders — Determination of particle polarity of bituminous emulsions*

EN 1431, *Bitumen and bituminous binders — Determination of residual binder and oil distillate from bitumen emulsions by distillation*

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

EN 12593, *Bitumen and bituminous binders — Determination of the Fraass breaking point*

EN 12594, *Bitumen and bituminous binders — Preparation of test samples*

EN 12595, *Bitumen and bituminous binders — Determination of kinematic viscosity*

EN 12596, *Bitumen and bituminous binders — Determination of dynamic viscosity by vacuum capillary*

EN 12597, *Bitumen and bituminous binders — Terminology*

EN 12846-1, *Bitumen and bituminous binders — Determination of efflux time by the efflux viscometer — Part 1: Bituminous emulsions*

EN 12846-2, *Bitumen and bituminous binders — Determination of efflux time by the efflux viscometer — Part 2: Cut-back and fluxed bituminous binders*

EN 12847, *Bitumen and bituminous binders — Determination of settling tendency of bituminous emulsions*

EN 12848, *Bitumen and bituminous binders — Determination of mixing stability with cement of bituminous emulsions*

EN 12849, *Bitumen and bituminous binders — Determination of penetration power of bituminous emulsions*

EN 12850, *Bitumen and bituminous binders — Determination of the pH value of bituminous emulsions*

EN 13074-1, *Bitumen and bituminous binders — Recovery of binder from bituminous emulsion or cut-back or fluxed bituminous binders — Part 1: Recovery by evaporation*

EN 13074-2, *Bitumen and bituminous binders — Recovery of binder from bituminous emulsion or cut-back or fluxed bituminous binders — Part 2: Stabilisation after recovery by evaporation*

EN 13075-1, *Bitumen and bituminous binders — Determination of breaking behaviour — Part 1: Determination of breaking value of cationic bituminous emulsions, mineral filler method*

EN 13075-2, *Bitumen and bituminous binders — Determination of breaking behaviour — Part 2: Determination of fines mixing time of cationic bituminous emulsions*

EN 13302, *Bitumen and bituminous binders — Determination of dynamic viscosity of bituminous binder using a rotating spindle apparatus*

EN 13398, *Bitumen and bituminous binders — Determination of the elastic recovery of modified bitumen*

EN 13587, *Bitumen and bituminous binders — Determination of the tensile properties of bituminous binders by the tensile test method*

EN 13588, *Bitumen and bituminous binders — Determination of cohesion of bituminous binders with pendulum test*

EN 13589, *Bitumen and bituminous binders — Determination of the tensile properties of modified bitumen by the force ductility method*

EN 13614, *Bitumen and bituminous binders — Determination of adhesivity of bituminous emulsions by water immersion test*

EN 13703, *Bitumen and bituminous binders — Determination of deformation energy*

EN 13924, *Bitumen and bituminous binders — Specifications for hard paving grade bitumens*

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

EN 14769, *Bitumen and bituminous binders — Accelerated long-term ageing conditioning by a Pressure Ageing Vessel (PAV)*

EN 16345, *Bitumen and bituminous binders — Determination of efflux time of bituminous emulsions using the Redwood No. II Viscometer*

EN ISO 3405, *Petroleum products — Determination of distillation characteristics at atmospheric pressure (ISO 3405)*

EN ISO 3675, *Crude petroleum and liquid petroleum products — Laboratory determination of density — Hydrometer method (ISO 3675)*

### **3 Terms and definitions**

For the purposes of this document, the terms and definitions given in EN 12597 apply.