

Bituumen ja bituumensideained. Vedeldatud ja pehmendatud bituumensideainete määratlemise alused

Bitumen and bituminous binders - Framework for specifying cutback and fluxed bituminous binders

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 15322:2013 sisaldab Euroopa standardi EN 15322:2013 ingliskeelset teksti.	This Estonian standard EVS-EN 15322:2013 consists of the English text of the European standard EN 15322:2013.
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English Version

Bitumen and bituminous binders - Framework for specifying cut-back and fluxed bituminous binders

Bitumes et liants bitumineux - Cadre de spécifications pour les liants bitumineux fluidifiés et fluxés

Bitumen und bitumenhaltige Bindemittel - Rahmenwerk für die Spezifizierung von verschnittenen und gefluxten bitumenhaltigen Bindemitteln

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

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Contents

Page

Foreword.....	3
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions.....	6
4 Abbreviated terms.....	6
5 Requirements and test methods.....	7
5.1 Properties/characteristics and related test methods.....	7
5.1.1 General.....	7
5.1.2 Properties of cut-back and fluxed bituminous binders (Table 3).....	9
5.1.3 Stabilised and long-term aged binders from cut-back and fluxed bituminous binders.....	9
5.1.4 Properties of stabilised and long-term aged binders from cut-back and fluxed bituminous binders.....	9
5.2 Dangerous substances.....	10
6 Assessment and verification of constancy of performance - AVCP.....	16
6.1 General.....	16
6.2 Type testing.....	16
6.2.1 General.....	16
6.2.2 Test samples, testing and compliance criteria.....	17
6.2.3 Test reports.....	17
6.2.4 Shared other party results.....	17
6.3 Factory production control (FPC).....	17
6.3.1 General.....	17
6.3.2 Requirements.....	18
6.3.3 Initial inspection of factory and of FPC.....	23
6.3.4 Continuous surveillance of FPC.....	24
6.3.5 Procedure for modifications.....	24
6.3.6 One-off products, pre-production products (e.g. prototypes) and products produced in very low quantity.....	24
Annex A (informative) Examples of abbreviated terms for cut-back and fluxed bituminous binders.....	26
Annex B (informative) Examples of selected performance classes for cut-back and fluxed bituminous binders.....	27
Annex ZA (informative) Clauses of this European Standard addressing the provisions of the EC Construction Products Regulation 305/2011.....	29
ZA.1 Scope and relevant characteristics.....	29
ZA.2 Procedure for AVCP of cut-back and fluxed bituminous binders.....	31
ZA.2.1 System of AVCP.....	31
ZA.2.2 Declaration of performance (DoP).....	32
ZA.3 CE marking and labelling.....	35
Bibliography.....	38

Foreword

This document (EN 15322:2013) 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 15322:2009, 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 15322 are as follows:

- revision of viscosity performance classes in Table 3;
- 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 European Standard is part of a family of European Standards for bitumen as follows:

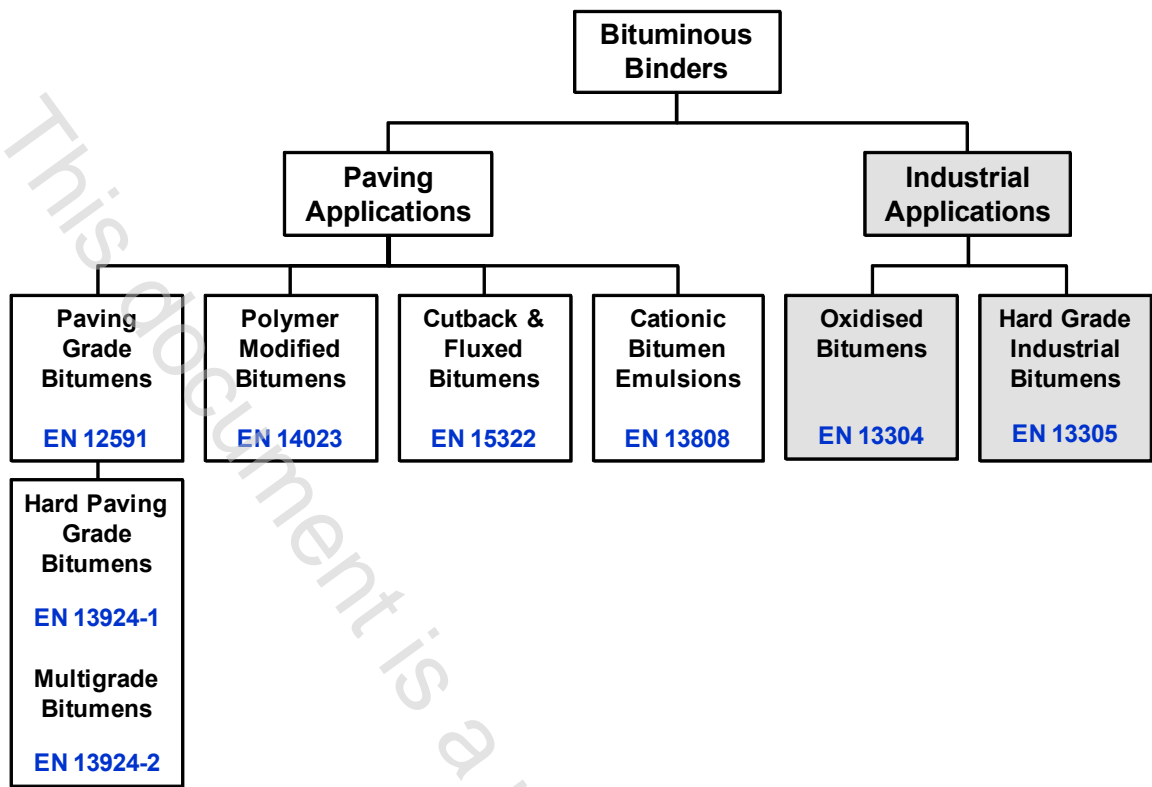


Figure 1 — European Standards for Bitumens

NOTE Industrial applications are not covered by Mandate M/124.

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 provides a framework for specifying cut-back and fluxed bituminous binders which are suitable for the use in the construction and maintenance of roads, airfields and other paved areas.

This European Standard applies to un-modified and polymer modified bituminous cut-back and fluxed materials.

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 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 12592, *Bitumen and bituminous binders — Determination of solubility*

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

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

EN 13358, *Bitumen and bituminous binders — Determination of the distillation characteristics of cut-back and fluxed bituminous binders made with mineral fluxes*

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

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 15626, *Bitumen and bituminous binders — Determination of adhesivity of cut-back and fluxed bituminous binders by water immersion test — Aggregate method*

EN ISO 2592, *Determination of flash and fire points — Cleveland open cup method (ISO 2592)*

EN ISO 2719, *Determination of flash point — Pensky-Martens closed cup method (ISO 2719)*

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)*

EN ISO 13736, *Determination of flash point — Abel closed-cup method (ISO 13736)*

3 Terms and definitions

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

3.1

mineral flux

flux which may be of carbochemical, petrochemical or petroleum origin or a mixture of those

3.2

vegetal flux

type of bio-flux derived exclusively from plant based (vegetal) product

4 Abbreviated terms

Abbreviated terms, providing an expression in letters and numbers (standard designations), are used to describe important characteristics of cut-back and fluxed bituminous binders i.e. viscosity, type of binder and setting ability and shall be in accordance with Table 1.

Denomination of cut-back and fluxed bituminous binders is set as follows:

- 2 letters, describing the type of flux, i.e. Fm for mineral flux and Fv for vegetal flux;
- 1 or 2 digits, corresponding to the viscosity class from Table 3 determined either by efflux time or by dynamic viscosity;
- 1 or 2 letters, describing the type of base binder, i.e. B standing for unmodified binder and BP standing for polymer modified binder (see Note b in Table 1);
- 1 digit, corresponding to the classes of setting ability from Table 3. Setting ability for Fm type is based on distillation (EN 13358), as strength development depends upon volatilisation of light oils. For Fv type materials, strength development involves a chemical change and not loss of volatiles, so the measure is based on softening point of recovered binder according to EN 13074-1. The test method (distillation or softening point) to which the digit refers is thus identified by the two letters (Fm or Fv) which indicate the type of flux.

Examples of abbreviated terms for cut-back and fluxed bituminous binders are given in Annex A.