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English Version

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

Bitumes et liants bitumineux - Cadre de spécifications
pour les bitumes routiers spéciaux - Partie 1 : Bitumes
routiers de grade dur

Bitumen und bitumenhaltige Bindemittel -
Anforderungsrahmenwerk für spezielle
Straßenbaubitumen - Teil 1: Harte Straßenbaubitumen

This European Standard was approved by CEN on 3 October 2015.

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.

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European foreword

This document (EN 13924-1:2015) 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of an identical text or by endorsement, at the latest by June 2016 and conflicting national standards shall be withdrawn at the latest by September 2017.

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 13924:2006.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

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

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

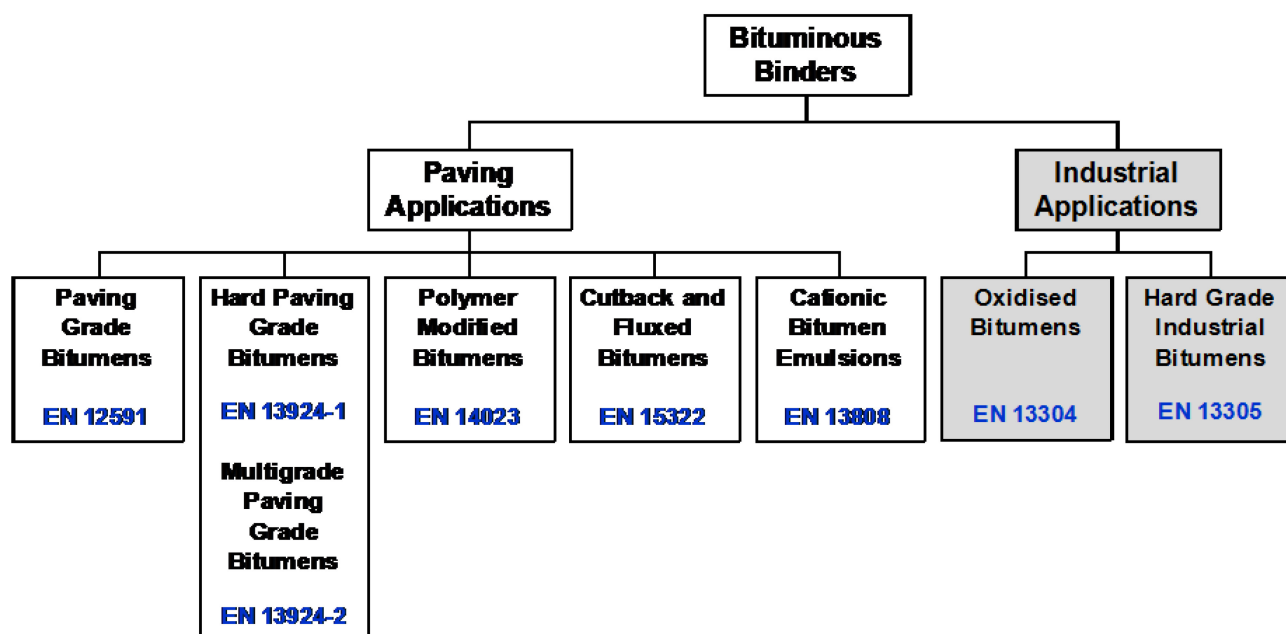


Figure 1 — European Standards for bitumens

According to the CEN-CENELEC Internal Regulations, the national standards 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 part of EN 13924 is closely related to EN 12591 [2]. This introduction gives information on the basis for selection of the grades defined in this part of EN 13924, the status of certain properties and test methods, and proposed development of this part of EN 13924.

The general principle adopted in the development of EN 12591 [2] was to provide a range of grades suitable for the manufacture of the materials for road construction and maintenance used, and the climatic and traffic conditions encountered, in all the Member States. This part of EN 13924 extends the range of grades specified in EN 12591 [2], following the wider use of materials for road construction and maintenance having very high modulus values.

This part of EN 13924 can be read in conjunction with National Guidance Documents, where they exist, which have the opportunity to identify the appropriate grade in the territory of use.

This part of EN 13924 has been based on the regional requirements identified when the process started. It is a step in harmonizing the so-called “empirical” specifications and it is intended to evaluate alternative properties and test methods to develop new specifications that are more directly performance-related. To this end, work programmes are being undertaken and the results will be considered for a future revision of this part of EN 13924. The progress of these work programmes are reported in CEN/TR 15352 [1], and the results will be considered for future revisions of this part of EN 13924.

For hard paving grade bitumens, the testing of the five essential characteristics, according to the mandate M/124, also gives an indication that its intrinsic cohesive properties are adequate for its normal use. The properties of “adhesion” and “setting ability” are indicated by tests used on the finished asphalt mixtures, EN 12697-1, EN 12697-11, EN 12697-12, EN 12697-26 (respectively [4] to [7]), rather than tests on the bitumen itself.

Hard paving grade bitumens are designated by the penetration range at 25 °C, e.g. 5/15, 10/20 or 15/25 (see Table 1).

1 Scope

This part of EN 13924 provides a framework for specifying the properties and relevant test methods for hard paving grade bitumens which are suitable for use in the construction and maintenance of roads, airfields and other paved areas.

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

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 12597:2014, *Bitumen and bituminous binders - Terminology*

EN 12607-1, *Bitumen and bituminous binders - Determination of the resistance to hardening under influence of heat and air - Part 1: RTFOT method*

EN 15326, *Bitumen and bituminous binders - Measurement of density and specific gravity - Capillary-stoppered pycnometer method*

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

EN ISO 4259, *Petroleum products - Determination and application of precision data in relation to methods of test (ISO 4259)*

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