

Bitumen and bituminous binders - Determination of breaking behaviour - Part 2: Determination of fines mixing time of cationic bituminous emulsions

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 13075-2:2016 sisaldab Euroopa standardi EN 13075-2:2016 ingliskeelset teksti.	This Estonian standard EVS-EN 13075-2:2016 consists of the English text of the European standard EN 13075-2:2016.
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English Version

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

Bitumes et liants bitumineux - Détermination du
comportement à la rupture - Partie 2 : Détermination
de la durée de miscibilité des fines dans les émulsions
cationiques de bitume

Bitumen und bitumenhaltige Bindemittel -
Bestimmung des Brechverhaltens - Teil 2: Bestimmung
der Mischzeit von Feinanteilen in kationischen
Bitumenemulsionen

This European Standard was approved by CEN on 27 August 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.

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European foreword

This document (EN 13075-2:2016) 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of an identical text or by endorsement, at the latest by May 2017, and conflicting national standards shall be withdrawn at the latest by May 2017.

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

This document supersedes EN 13075-2:2009.

In comparison with EN 13075-2:2009, the following significant changes have been made:

- Clause 5: three reference fillers (Forshammer, Sikaisol and Caolin Q92) may be used;
- Subclause 6.10 is discarded since this clause is not referenced in the test procedure (Clause 8) and since requirements on temperature control are already stated in 6.1 (oven) and 6.7 (temperature bath or climatic chamber);
- Subclause 6.2 and Clause 8: the conical shaped funnel is no longer required as filler is to be directly added via a spoon from a simple ad hoc container. Clause 6.2 now defines the different containers needed by the test procedure. Clause 8 is modified accordingly;
- Clause 10: since no supporting evidence for the values previously stated in the 2009 version could be found, repeatability and reproducibility figures are withdrawn;
- Annex A: more complete (e.g. particle size distribution envelopes) and more homogeneous description of the three reference fillers.

EN 13075 consists of the following parts under the general title "*Bitumen and bituminous binders - Determination of breaking behaviour*":

- *Part 1: Determination of breaking value of cationic bituminous emulsions, mineral filler method*
- *Part 2: Determination of fines mixing time of cationic bituminous emulsions*

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 a method for the determination of the fines mixing time of diluted cationic bituminous emulsions, under standardized conditions.

WARNING — The use of this European Standard can involve hazardous materials, operations and equipment. This European Standard does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this European Standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

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 12594, *Bitumen and bituminous binders - Preparation of test samples*

EN ISO 3696, *Water for analytical laboratory use - Specification and test methods (ISO 3696)*

3 Terms and definitions

For the purposes of this document, the following term and definition applies.

3.1 fines mixing time

time in seconds for the mixability of a mixture of mineral filler and bitumen emulsion without noticeable breaking effect under the conditions specified in this European Standard

4 Principle

A specified quantity of filler is added at a uniform rate, with stirring, to a specified quantity of bitumen emulsion diluted with water. Stirring is continued until the mixture becomes pasty and forms lumps that do not adhere to the walls of the pan. This, combined with a noticeable increase in stirring power indicates the end of mixability. The time to reach this point (breaking status) is the fines mixing time.

5 Reagents and materials

Use only reagents of recognized analytical grade and water conforming to grade 3 of EN ISO 3696.

5.1 Reference fillers.

The Forshammer filler¹⁾, the Sikaisol filler¹⁾ or the Caolin Q92 filler¹⁾ shall be used as reference fillers. The characteristics of these fillers are given in Annex A.

In the event of dispute, the same filler shall be used by the testing laboratories.

5.2 Cleaning agents, as used conventionally in laboratories.

1) This information is given for the convenience of users of this European Standard and does not constitute an endorsement by CEN of the product named. Equivalent products may be used if they can be shown to lead to the same results, or if a correlation between the products has been established.