

Bitumen and bituminous binders - Determination of the elastic recovery of modified bitumen

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 13398:2017 sisaldab Euroopa standardi EN 13398:2017 ingliskeelset teksti.	This Estonian standard EVS-EN 13398:2017 consists of the English text of the European standard EN 13398:2017.
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English Version

Bitumen and bituminous binders - Determination of the elastic recovery of modified bitumen

Bitumes et liants bitumineux - Détermination du retour élastique des bitumes modifiés

Bitumen und bitumenhaltige Bindemittel - Bestimmung der elastischen Rückstellung von modifiziertem Bitumen

This European Standard was approved by CEN on 15 October 2017.

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European foreword

This document (EN 13398:2017) 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of an identical text or by endorsement, at the latest by June 2018, and conflicting national standards shall be withdrawn at the latest by June 2018.

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 13398:2010.

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

Compared to EN 13398:2010, the major changes in the present standard are:

- Incorrect reference to ISO 5725 for rounding off values removed from Clause 2 and 9;
- the possibility of alternative measuring conditions are now mentioned in Clause 4 Principle;
- reference to ASTM D113 has been deleted in 5.1 and Bibliography;
- in 6.3 the maximum temperature for the pre-heating of moulds is linked to the softening point (ring and ball) of the specimen or to 70 °C if softening point (ring and ball) is not known;
- Clause 11 Other test conditions is now part of Clause 4 Principle;
- several test methods are now referenced in the Bibliography.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard specifies a method for the determination of the elastic recovery of bituminous binders in a ductilometer at the test temperature (typically 25 °C or 10 °C; other temperatures can be used).

It is especially applicable to bituminous binders modified with thermoplastic elastomers, but can also be used with other bituminous binders which generate only small recovery.

WARNING — The use of this European Standard may 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 are referred to in the text in such a way that some or all of their content constitutes requirements of this document. 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 1427, *Bitumen and bituminous binders - Determination of the softening point - Ring and Ball method*

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

3 Terms and definitions

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

3.1

bitumen thread

test specimen of moulded bitumen, when stretched

3.2

half-threads

two pieces obtained when a bitumen specimen has been stretched to a thread and then cut in the middle

3.3

elastic recovery

R_E

expressed as a percentage of the distance between the ends of the half-threads, which has developed 30 min after cutting relative to the elongation length, which is in general 200 mm