

Bitumen and bituminous binders - Determination of the distillation characteristics of cut-back and fluxed bituminous binders made with mineral fluxes

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 13358:2010 sisaldab Euroopa standardi EN 13358:2010 ingliskeelset teksti.

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English Version

Bitumen and bituminous binders - Determination of the
distillation characteristics of cut-back and fluxed bituminous
binders made with mineral fluxes

Bitumes et liants bitumineux - Détermination des
caractéristiques de distillation des liants bitumineux
fluidifiés et fluxés avec des fluxants d'origine minérale

Bitumen und bitumenhaltige Bindemittel - Bestimmung des
Destillationsverlaufes von mit Mineralölfluxmitteln
verschnittenen oder gefluxten bitumenhaltigen Bindemitteln

This European Standard was approved by CEN on 20 May 2010.

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Foreword

This document (EN 13358:2010) has been prepared by Technical Committee CEN/TC 336 "Bituminous binders", the secretariat of which is held by AFNOR/BNPé.

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of an identical text or by endorsement, at the latest by December 2010, and conflicting national standards shall be withdrawn at the latest by December 2010.

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 13358:2004.

This European Standard is based on ASTM D402-97.

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1 Scope

This European Standard specifies a method for the determination of the distillation characteristics of cut-back and fluxed bituminous binders made with mineral fluxes.

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 referenced documents are indispensable for the application 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 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 distillation

process of evaporation and condensation of a liquid

3.2 mineral flux

flux which may be of carbochemical or petrochemical origin or a mixture of both

4 Principle

Petroleum cut-back and fluxed bituminous binders are distilled at a controlled rate until the temperature of the liquid reaches 360 °C. The volumes of distillate and residue obtained over specified temperature ranges are measured. The residue from the distillation and also the distillate may be tested as required.

5 Apparatus

Usual laboratory apparatus and glassware, together with the following.

5.1 Distillation flask, 500 ml and with side-arm, of dimensions given in Figure 1.

5.2 Condenser, standard, glass-jacketed, of nominal jacket length from 200 mm to 300 mm and overall tube length of (450 ± 10) mm (see Figure 3).

5.3 Adaptor, made with glass of approximately 1 mm thickness, with reinforced top, having an angle of approximately 105°. The inside diameter shall be (18 ± 2) mm at the wide end and not less than 5 mm at the narrow end. The lower surface of the adaptor shall be on a smooth descending curve from the wider end to the narrower. The inside line of the outlet end shall be vertical, and the outlet shall be cut or ground (not fire-polished) at an angle of $(45 \pm 5)^\circ$.

NOTE In the equipment described in the above paragraphs and in Figure 1 and Figure 3, cork stoppers are used, however, equipment with ground glass joints may also be used.