

Bitumen and bituminous binders - Determination of cohesion of bituminous binders with pendulum test

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13588:2008 sisaldab Euroopa standardi EN 13588:2008 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 26.05.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 12.03.2008.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13588:2008 consists of the English text of the European standard EN 13588:2008.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 26.05.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p> <p>Date of Availability of the European standard text 12.03.2008.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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English Version

Bitumen and bituminous binders - Determination of cohesion of bituminous binders with pendulum test

Bitumes et liants bitumineux - Détermination de la cohésion des liants bitumineux par la méthode du mouton-pendule

Bitumen und bitumenhaltige Bindemittel - Bestimmung der Kohäsion von bitumenhaltigen Bindemitteln mit der Pendelprüfung

This European Standard was approved by CEN on 21 January 2008.

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Foreword

This document (EN 13588:2008) 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of an identical text or by endorsement, at the latest by September 2008, and conflicting national standards shall be withdrawn at the latest by September 2008.

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 13588:2004.

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Introduction

The cohesion is one of the measures of the performance of a bituminous binder. It is important to use binders which have a sufficient level of cohesion according to the level of traffic to be supported. Cohesion has originally been developed for surface dressing however it can be used for any type of binder (pure, modified or fluxed) which is to be used in different types of road applications. Knowledge of cohesion enables the choice of binder type for given traffic and site conditions.

This European Standard describes a method for determining the cohesion of a binder and how to draw the cohesion curve as a function of temperature.

1 Scope

This European Standard specifies a method for measuring the cohesion of bituminous binders at temperatures in the range of (- 10 °C) to (+ 80 °C) and for expressing the relationship between cohesion and temperature.

This method is applicable for pure bitumen, modified bitumen and fluxed bitumen; in the case of fluxed bitumen, the test can be performed on the binder containing fluxant or on binder from which the solvent has been removed. For bitumen emulsions, the test is carried out on the residual binder obtained after recovery and the method used to recover the binder should be reported.

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 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

cohesion

energy per unit area required to fully detach a cube from the support, with the previously-bonded faces of cube and support remaining fully covered by binder

NOTE Where the cube remains attached to the support after elastic displacement, the energy value measured by the test is always less than the true cohesion value, so the test result can be used to establish that the binder has more than a specified minimum value of cohesion.

4 Symbols and abbreviations

For the purposes of this European Standard, the following symbols and abbreviations apply.

α

angle indicated by the pointer after launching the pendulum and impacting a cube placed on and adhered to the support by binder

α'

angle indicated by the pointer after launching the pendulum and impacting a cube with binder, placed on but not adhered to the clean support

E

energy required to remove a cube placed on and adhered to the support by binder