

**Bituumen ja bituumensideained. Kinemaatilise viskoossuse määramine**

**Bitumen and bituminous binders. Determination of kinematic viscosity**

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 12595:2007 sisaldab Euroopa standardi EN 12595:2007 ingliskeelset teksti.	This Estonian standard EVS-EN 12595:2007 consists of the English text of the European standard EN 12595:2007.
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English Version

**Bitumen and bituminous binders - Determination of kinematic  
viscosity**

Bitumes et liants bitumineux - Détermination de la viscosité  
cinématique

Bitumen und bitumenhaltige Bindemittel - Bestimmung der  
kinematischen Viskosität

This European Standard was approved by CEN on 3 February 2007.

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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 Management Centre has the same status as the official versions.

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## Foreword

This document (EN 12595:2007) 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of an identical text or by endorsement, at the latest by September 2007, and conflicting national standards shall be withdrawn at the latest by September 2007.

This document supersedes EN 12595:1999.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

## 1 Scope

This European Standard specifies a method for the determination of the kinematic viscosity of bituminous binders at 60 °C and 135 °C, in a range from 6 mm<sup>2</sup>/s to 300 000 mm<sup>2</sup>/s. Bituminous Emulsions are not covered within the scope of this method.

NOTE Emulsions containing bituminous binders are not considered to be covered by this method. The method can be used for anhydrous binders obtained from emulsions (stabilised and/or recovered binders).

Results for this method can be used to calculate dynamic viscosity when the density of the test material is known or can be determined.

**WARNING — 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*

EN ISO 2592, *Determination of flash and fire points - Cleveland open cup method (ISO 2592:2000)*

EN ISO 3696:1995, *Water for analytical laboratory use - Specification and test methods (ISO 3696:1987)*

## 3 Terms and definitions

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

### 3.1

#### **kinematic viscosity**

ratio between the dynamic viscosity and the density of a liquid at the temperature of viscosity measured

NOTE 1 Kinematic viscosity is a measure of a liquid's resistance to flow under gravity.

NOTE 2 The SI unit of kinematic viscosity is m<sup>2</sup>/s; for practical use, a sub-multiple (mm<sup>2</sup>/s) is more convenient.

### 3.2

#### **density**

mass of a liquid divided by its volume

NOTE 1 When reporting density, the unit of density used, together with the temperature, is explicitly stated, for example kilogram per cubic metre.

NOTE 2 The SI unit of density is kg/m<sup>3</sup>.

### 3.3

#### **dynamic viscosity**

ratio between the applied shear stress and the velocity gradient