

**Bitumen and bituminous binders - Determination of
efflux time of bituminous emulsions using the Redwood
No. II Viscometer**

EESTI STANDARDI EESSÕNA

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English Version

Bitumen and bituminous binders - Determination of efflux time of bituminous emulsions using the Redwood No. II Viscometer

Bitumes et liants bitumineux - Mesure du temps d'écoulement des émulsions bitumineuses avec le Viscosimètre Redwood No. II

Bitumen und bitumenhaltige Bindemittel - Bestimmung der Ausflusszeit von Bitumenemulsionen mit dem Redwood Nr. II-Viskosimeter

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 16345:2012) 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of an identical text or by endorsement, at the latest by January 2013, and conflicting national standards shall be withdrawn at the latest by May 2014.

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1 Scope

This European Standard specifies a method for the determination of the efflux time (in seconds) of a bituminous emulsion at 85 °C using the Redwood No. II Viscometer.

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 to 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*

3 Terms and definitions

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

3.1

viscosity

internal resistance of a fluid to flow

3.2

efflux time

time needed for a specified volume of a material to flow through a specified orifice at a specified temperature

Note 1 to entry: The efflux time is an indirect measure of the viscosity and is also referred to as “pseudo-viscosity”.

4 Principle

The efflux time of a bituminous emulsion is determined using the Redwood No. II Viscometer which determines the time of efflux of a 50 ml sample through a 3,8 mm orifice at 85 °C.

5 Reagents and materials

5.1 Spirit level.

5.2 Soft tissue paper, or other material suitable for drying the oil cup, which will not leave any residue.

6 Apparatus

Usual laboratory apparatus and glassware, together with the following:

6.1 Standard Redwood No. II Viscometer, of the dimensions given in Figure 1, complete with ball-valve, oil cup cover, thermometer clip, stand and screen.