# Bitumen and bituminous binders -Determination of the softening point -Ring and Ball method

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# EESTI STANDARDI EESSÕNA

# **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN	This Estonian standard EVS-EN
1427:2007 sisaldab Euroopa standardi EN	1427:2007 consists of the English text of
1427:2007 ingliskeelset teksti.	the European standard EN 1427:2007.
Käesolev dokument on jõustatud	This document is endorsed on 20.04.2007
20.04.2007 ja selle kohta on avaldatud	with the notification being published in the
teade Eesti standardiorganisatsiooni	official publication of the Estonian national
ametlikus väljaandes.	standardisation organisation.
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Standard on kättesaadav Eesti standardiorganisatsioonist.

The standard is available from Estonian standardisation organisation.

## Käsitlusala:

This European Standard specifies a method for the determination of the softening point of bitumen and bituminous binders in the range of 28 °C to 150 °C.

# Scope:

This European Standard specifies a method for the determination of the softening point of bitumen and bituminous binders in the range of 28 °C to 150 °C.

ICS 75.140, 91.100.50

Võtmesõnad:

# EUROPEAN STANDARD NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

**EN 1427** 

March 2007

ICS 75.140: 91.100.50

Supersedes EN 1427:1999

# **English Version**

# Bitumen and bituminous binders - Determination of the softening point - Ring and Ball method

Bitumes et liants bitumineux - Détermination du point de ramollissement - Méthode Bille et Anneau

Bitumen und bitumenhaltige Bindemittel - Bestimmung des Erweichungspunktes - Ring- und Kugel-Verfahren

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

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

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

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# **Foreword**

This document (EN 1427:2007) 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 1427:1999.

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, at. 10m. Sweden, Switzerland and United Kingdom.

# 1 Scope

This European Standard specifies a method for the determination of the softening point of bitumen and bituminous binders in the range of 28 °C to 150 °C.

NOTE The method described is also applicable to bituminous binders that have been recovered from bituminous mixes, e.g. by extraction.

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 12597, Bitumen and bituminous binders – Terminology

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 terms and definitions given in EN 12597 and the following apply.

# 3.1

## softening point

temperature at which material under standardised test conditions attains a specific consistency

## 4 Principle

Two horizontal discs of bituminous binder, cast in shouldered brass rings shall be heated at a controlled rate in a liquid bath while each supports a steel ball. The softening point shall be reported as the mean of the temperatures at which the two discs soften enough to allow each ball, enveloped in bituminous binder, to fall a distance of  $(25,0\pm0,4)$  mm.

## 5 Reagents and materials

#### 5.1 General

Use only reagents of specified analytical grade and water conforming to grade 3 of EN ISO 3696:1995 unless otherwise specified.