

ASFALTSEGUD. KATSEMEETODID. OSA 13:  
TEMPERATUURI MÕÕTMINE

Bituminous mixtures - Test methods - Part 13:  
Temperature measurement

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 12697-13:2017 sisaldab Euroopa standardi EN 12697-13:2017 ingliskeelset teksti.	This Estonian standard EVS-EN 12697-13:2017 consists of the English text of the European standard EN 12697-13:2017.
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EUROPEAN STANDARD

**EN 12697-13**

NORME EUROPÉENNE

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English Version

## Bituminous mixtures - Test methods - Part 13: Temperature measurement

Mélanges Bitumineux - Méthodes d'essai - Partie 13:  
Mesure de la température

Asphalt - Prüfverfahren - Teil 13: Temperaturmessung

This European Standard was approved by CEN on 28 August 2017.

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-CENELEC 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-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
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**Contents**

Page

<b>European Foreword</b> .....	<b>3</b>
<b>1 Scope</b> .....	<b>4</b>
<b>2 Principle</b> .....	<b>4</b>
2.1 <b>General</b> .....	<b>4</b>
2.2 <b>Contact Temperature Measuring Thermometer</b> .....	<b>4</b>
2.3 <b>Infrared-thermometer</b> .....	<b>4</b>
<b>3 Apparatus</b> .....	<b>4</b>
3.1 <b>Contact temperature measuring</b> .....	<b>4</b>
3.2 <b>Infrared-thermometer</b> .....	<b>5</b>
<b>4 Procedure</b> .....	<b>5</b>
4.1 <b>Contact Measuring Device</b> .....	<b>5</b>
4.2 <b>Infrared-thermometer</b> .....	<b>6</b>
<b>5 Test Report</b> .....	<b>7</b>
5.1 <b>Mandatory information</b> .....	<b>7</b>
5.2 <b>Optional information</b> .....	<b>7</b>
<b>6 Precision</b> .....	<b>7</b>

## European Foreword

This document (EN 12697-13:2017) has been prepared by Technical Committee CEN/TC 227 "Road materials", the secretariat of which is held by DIN.

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 May 2018, and conflicting national standards shall be withdrawn at the latest by May 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 12697-13:2000.

The following is a list of significant technical changes since the previous edition:

- A test device for non-contact temperature-measurement (infrared-thermometer) is added,
- 2.3 Infrared-thermometer,
- 3.2 Infrared-thermometer,
- 4.2 Infrared-thermometer.

A list of all parts in the EN 12697 series can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## 1 Scope

This European Standard specifies a test method for measuring the temperature of asphalt mixtures after mixing and during storage, transportation and laying. This European Standard includes the contact temperature-measuring device and the non-contact temperature-measuring device (infrared-thermometer).

## 2 Principle

### 2.1 General

In cases of dispute, the reference method using the contact temperature measuring device is preferred.

### 2.2 Contact Temperature Measuring Thermometer

A probe attached to a temperature measuring device is preheated before the temperature at stated depths in a number of locations is measured while the asphalt is in various stages of the delivery, laying and compaction process. The average is then calculated.

### 2.3 Infrared-thermometer

An infrared-thermometer is focussed on the surface of the asphalt to be measured at various stages of the delivery, laying and compaction process. A number of locations on the asphalt surface will be measured. Afterwards, the mean is calculated.

## 3 Apparatus

### 3.1 Contact temperature measuring

#### 3.1.1 General

The temperature measuring device shall have the capacity to measure the temperature with an accuracy of  $\pm 2$  °C and be fitted with a suitable probe of which the response time is known for the temperature interval which is to be measured. The temperature measuring device and probe shall be suitable for the use in that location where the temperature is to be measured.

NOTE 1 The heat-sensing element of electronic thermometer probes is very small and is normally mounted in the tip of the probe, and therefore a single probe can be used for measuring temperatures of both bulk and as laid material.

NOTE 2 Thermocouple probes available cover a large temperature range, typically 400 °C.

The thermal capacity of the temperature measuring device shall be as small as possible, consistent with adequate robustness, to minimize the time required to obtain a reliable reading.

#### 3.1.2 Devices for measuring the temperature of material in a lorry or in a heap

The probe of the temperature-measuring device shall have a minimum length of 200 mm, with the sensing element positioned close to the end.