

**norm****NEN-EN 12697-21**

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Beproevingmethoden - Deel 21:  
Indringingsproef op proefplaten

Publicatie uitsluitend voor commentaar

Bituminous mixtures - Test methods - Part 21: Indentation using plate specimens

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Voorbeeld  
Preview

December 2018

ICS

Will supersede EN 12697-21:2012

English Version

## Bituminous mixtures - Test methods - Part 21: Indentation using plate specimens

Mélanges bitumineux - Méthodes d'essai - Partie 21:  
Essai de pénétration de plaques

Asphalt - Prüfverfahren - Teil 21: Eindringversuch an  
Platten

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 227.

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**Contents**

**Page**

|  |   |
|--|---|
| European foreword.....                               | 3 |
| 1 Scope.....   | 4 |
| 2 Normative references.....                          | 4 |
| 3 Apparatus.....                                     | 4 |
| 3.1 Moulding of test plates of mastic asphalt.....   | 4 |
| 3.2 Apparatus for the indentation test.....          | 4 |
| 3.2.1 System for the load transmission.....          | 4 |
| 3.2.2 Apparatus for measuring indentation.....       | 5 |
| 3.2.3 Apparatus for temperature regulation.....      | 5 |
| 4 Sampling and preparation of laboratory sample..... | 5 |
| 4.1 Sampling.....                                    | 5 |
| 4.2 Preparation of the samples.....                  | 5 |
| 5 Procedure.....                                     | 5 |
| 6 Calculation and expression of results.....         | 6 |
| 7 Precision.....                                     | 7 |
| 8 Test report.....                                   | 7 |
| Bibliography.....                                    | 8 |

Preview  
 NEN-EN 12697-21

## European foreword

This document (prEN 12697-21:2018) has been prepared by Technical Committee CEN/TC 227 “Road materials”, the secretariat of which is held by BSI.

This document is currently submitted to the enquiry.

This document will supersede EN 12697-21:2012.

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

- The title no longer makes the method exclusively for hot mix asphalt;
- [ge] Editorial update according to current standard template;
- [Bibliography] Standards not referred to in the test method deleted.

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

Original  
Preview

**prEN 12697-21:2018 (E)****1 Scope**

This document specifies a test method for measuring the indentation of mastic asphalt when it is penetrated at a given temperature, load and for a fixed time period by a standardized cylindrical indenter pin with a circular flat-ended base. This document applies to mastic asphalt with aggregates of maximum nominal size less or equal to 16 mm.

**2 Normative references**

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 12697-27, *Bituminous mixtures - Test methods - Part 27: Sampling*

**3 Apparatus****3.1 Moulding of test plates of mastic asphalt**

**3.1.1 Moulds** of 100 mm to 150 mm diameter and 25 mm height or sample moulds 150 mm × 150 mm × 25 mm. Approximate dimensions are sufficiently accurate.

**3.1.2 Oven** capable of maintaining temperature of  $(250 \pm 10)$  °C.

**3.1.3 Spatula**

**3.1.4 Thermometer** capable to measure 300 °C accurate to 2 °C.

**3.2 Apparatus for the indentation test****3.2.1 System for the load transmission****3.2.1.1 General**

A system able to apply the load under the conditions of Table 1 for the selected type of test.

The load is applied differently according to the type of apparatus used. The following load application systems are suitable:

**3.2.1.2 Lever arm and counterweight:** After balancing of lever arm, with help of a balance weight, place a weight into a mark situated on the arm, at such a distance, that the chosen load is applied on the pin.

**3.2.1.3 Direct charge system:** Comprising a plate, fixed to a vertical axis.

**3.2.1.4 Transmission by pneumatic actuator:** Pressure of compressed air permits the desired force to be obtained. This pressure is preliminarily adjusted by means of a pressure gauge and released at the moment of the test.

**3.2.1.5 Flat ended, cylindrical stainless steel, indenter pins** of the following diameters:

- $(25,2 \pm 0,1)$  mm for a surface of 500 mm<sup>2</sup>;
- $(11,3 \pm 0,1)$  mm for a surface of 100 mm<sup>2</sup>;
- $(6,35 \pm 0,1)$  mm for a surface of 31,7 mm<sup>2</sup>.

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