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Standards

Irish Standard  
I.S. EN 12697-21:2020

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

**I.S. EN 12697-21:2020**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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## National Foreword

I.S. EN 12697-21:2020 is the adopted Irish version of the European Document EN 12697-21:2020, Bituminous mixtures - Test methods - Part 21: Indentation using plate specimens

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EUROPEAN STANDARD

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NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2020

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English Version

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

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

Asphalt - Prüfverfahren - Teil 21: Eindringversuch an  
Platten

This European Standard was approved by CEN on 18 November 2019.

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## **European foreword**

This document (EN 12697-21:2020) has been prepared by Technical Committee CEN/TC 227 “Road materials”, the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by August 2020, and conflicting national standards shall be withdrawn at the latest by August 2020.

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 12697-21:2012.

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;
- [Clause 3] new clause: 3 Terms and definitions introduced according ISO/IEC Directives – Part 2. Following clauses renumbered accordingly;
- [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.

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## EN 12697-21:2020 (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 than 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 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp/ui>

### 4 Apparatus

#### 4.1 Moulding of test plates of mastic asphalt

**4.1.1 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.

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

**4.1.3 Spatula.**

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

#### 4.2 Apparatus for the indentation test

##### 4.2.1 System for the load transmission

###### 4.2.1.1 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:

**4.2.1.2 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.

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



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