



NSAI
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
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 12697-21

February 2020

ICS 93.080.20

Supersedes EN 12697-21:2012

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.

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of an identical text or by endorsement, at the latest by August 2020, and conflicting national standards shall be withdrawn at the latest by August 2020.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

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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 $(250 \pm 10) ^\circ\text{C}$.

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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