



NSAI
Standards

Irish Standard
I.S. EN 12697-22:2020

Bituminous mixtures - Test methods - Part 22: Wheel tracking

I.S. EN 12697-22:2020

Incorporating amendments/corrigenda/National Annexes issued since publication:

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I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

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National Foreword

I.S. EN 12697-22:2020 is the adopted Irish version of the European Document EN 12697-22:2020, Bituminous mixtures - Test methods - Part 22: Wheel tracking

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EUROPEAN STANDARD

EN 12697-22

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2020

ICS 93.080.20

Supersedes EN 12697-22:2003+A1:2007

English Version

Bituminous mixtures - Test methods - Part 22: Wheel tracking

Mélanges bitumineux - Méthodes d'essai - Partie 22 :
Essai d'orniérage

Asphalt - Prüfverfahren - Teil 22: Spurbildungstest

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

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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
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN 12697-22:2020) 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of an identical text or by endorsement, at the latest by August 2020, and conflicting national standards shall be withdrawn at the latest by August 2020.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 12697-22:2003+A1:2007.

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;
- [Clause 2] ISO 48, Rubber, vulcanized or thermoplastic — Determination of hardness (hardness between 10 IRHD and 100 IRHD), replaced by: ISO 48-2, Rubber, vulcanized or thermoplastic — Determination of hardness — Part 2: Hardness between 10 IRHD and 100 IRHD; ISO 7619, Rubber, vulcanized or thermoplastic — Determination of indentation hardness, replaced by: ISO 48-5, Rubber, vulcanized or thermoplastic — Determination of hardness — Part 5: Indentation hardness by IRHD pocket meter method;
- [3.5] Table 1 deleted;
- [Clause 4] symbols for properties in the different methods made more consistent and corrected through the whole document. Table 2 replaced by new Table 1;
- [Clause 6] moulds added to the list of equipment. Modifications for clarity;
- [6.3.1.2] ISO 7619 and ISO 48 replaced by: ISO 48-5 and 48-2;
- [7.1] new clause added and the order of clauses changed;
- [7.2.1.1] vibratory compactor excluded as a method of sample preparation;
- [7.2.1.2] thickness for mixtures with upper sieve size larger than 22 changed to 80 mm;
- [7.5.1] the text has been modified for clarity. “Plaster of Paris” amended to holding medium;
- [7.6] storage time amended to max 42 days and requirement added for storing samples on a flat surface;
- [8.1.7] deleted;
- [9.2.1] Formula (2) corrected;
- [9.3.1.2] Formula (7) corrected;
- [9.3.2.2] required rounding of WTS_{AIR} values specified;

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- [9.3.3.2] required rounding of WTS_W values specified;
- [10.1.2] type of roller compactor required to be reported;
- [11.4] precision data for small device, procedure B (air) added;

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.

1 Scope

This document describes test methods for determining the susceptibility of bituminous materials to deform under load. The test is applicable to mixtures with upper sieve size less than or equal to 32 mm.

The tests are applicable to specimens prepared from asphalt mixtures that have either been manufactured in a laboratory or cut from a pavement; test specimens are held in a mould with their surface flush with the upper edge of the mould.

The susceptibility of bituminous materials to deform is assessed by the rut formed by repeated passes of a loaded wheel at constant temperature. Three alternative types of device can be used according to this standard: large-size devices, extra large-size devices and small-size devices. With large-size devices and extra large-size devices, the specimens are conditioned in air during testing. With small-size devices, specimens are conditioned, in either air or water.

NOTE Large-size and extra large-size devices are not suitable for use with cylindrical cores.

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 12697-6, *Bituminous mixtures — Test methods — Part 6: Determination of bulk density of bituminous specimens*

EN 12697-7, *Bituminous mixtures — Test methods for hot mix asphalt — Part 7: Determination of bulk density of bituminous specimens by gamma rays*

EN 12697-27, *Bituminous mixtures — Test methods — Part 27: Sampling*

EN 12697-33, *Bituminous mixtures — Test method — Part 33: Specimen prepared by roller compactor*

EN 12697-35, *Bituminous mixtures — Test methods — Part 35: Laboratory mixing*

ISO 48-2, *Rubber, vulcanized or thermoplastic — Determination of hardness — Part 2: Hardness between 10 IRHD and 100 IRHD*

ISO 48-5, *Rubber, vulcanized or thermoplastic — Determination of hardness — Part 5: Indentation hardness by IRHD pocket meter method*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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>

3.1

nominal thickness

for laboratory prepared specimens, the target thickness, in millimetres, to which the specimens are to be prepared

Note 1 to entry: The target thickness is the required thickness that is targeted when making the specimen.

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