

Bituminous mixtures - Test methods - Part 43:  
Resistance to fuel

## EESTI STANDARDI EESSÕNA

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English Version

## Bituminous mixtures - Test methods - Part 43: Resistance to fuel

Mélanges bitumineux - Méthodes d'essais - Partie 43 :  
Résistance aux carburants

Asphalt - Prüfverfahren - Teil 43: Widerstand gegen  
Treibstoffe

This European Standard was approved by CEN on 3 March 2023.

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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 12697-43:2023) 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of an identical text or by endorsement, at the latest by October 2023, and conflicting national standards shall be withdrawn at the latest by October 2023.

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 12697-43:2014.

The main changes compared to the previous edition are listed below:

- the title no longer refers to hot mix asphalt;
- general editorial update according to current standard template and CEN/CENELEC Internal Regulations Part 3:2019;
- general editorial change of rotation speed indicated with “rpm” to “min<sup>-1</sup>”;
- [Clause 2] deletion of reference to EN 13108-20:2006;
- [Clause 2] added reference to EN 12697-7;
- [5.3] paragraph revised and the term accuracy amended to maximum permissible error;
- [5.6.2] keys referring to Figure 3 corrected to letters;
- [5.6.2] corrected reference to Clause 5.7 in Figure 3, E;
- [5.8] completion of description of soft-haired brush;
- [5.8] introduction of new Figure 5 (example of soft-haired brush). Following Figures re-numbered;
- [5.9] introduction of new Clause with description of pH-meter;
- [7.2] tolerance for the height of specimen amended from “40 to 60 mm” to “(50 ± 5) mm”;
- [7.2] specimens to be tested amended from three to four;
- [7.2] clarified description of porous asphalt and non-porous asphalt with respect to void content;
- [7.2] introduction of paragraph with description of the use of compaction methods;
- [7.2] introduction of explanatory NOTE regarding the impact of height on the result;
- [7.2] introduction of explanatory NOTE regarding the impact of different compaction methods;
- [7.3] reference to EN 13108-20:2006. Annex A deleted;

- [7.3] addition of EN 12697-7 for the determination of bulk density;
- [8.1.1] amended description for the immersion of fuel of the test specimen;
- [8.1.1] changed storage temperature for the immersed specimen to  $20 \pm 2$  °C;
- [8.1.1] introduction of explanatory NOTE regarding influence of the fuel temperature;
- [8.1.2] introduction of “WARNING” regarding the disposal of the soiled water;
- [8.1.3] the term “accuracy” amended to read “to the nearest”. NOTE changed to normal text;
- [8.2.1] clarified description of porous asphalt and non-porous asphalt with respect to void content;
- [8.2.2], [8.2.2.1], [8.2.2.2], [8.2.3], [8.2.3.1], [8.2.3.2], [8.2.4], [8.2.5] amended titles;
- [8.2.5] paragraph with “EXAMPLE” amended to normal text;
- [8.3] deletion of conflicting and superfluous paragraph “Carry out the test with three specimens”;
- [8.3] added references to Formulas;
- [Clause 9] bullets in test report revised and completed with additional information to be given.

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

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies 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, Türkiye and the United Kingdom.

## 1 Scope

This document specifies a test method to determine the resistance of a bituminous mixture or pavement to fuels. The procedure involves initial soaking of a test specimen made in the laboratory or cored from a pavement in a fuel, followed by a brushing period with a brush test device. The material loss of the specimen is a measure of the resistance to that fuel for that bituminous mixture.

## 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 - Part 7: Determination of the bulk density of bituminous specimens by gamma rays*

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

EN 12697-30, *Bituminous mixtures - Test methods - Part 30: Specimen preparation by impact compactor*

EN 12697-31, *Bituminous mixtures - Test methods - Part 31: Specimen preparation by gyratory compactor*

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*

## 3 Terms and definitions

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

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

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

### 3.1

#### **fuel**

liquid (petroleum product) that might be spilled accidentally or sprayed deliberately onto an asphalt pavement and can cause damage to the asphalt mixture