

ASFALTSEGUD. KATSEMEETODID. OSA 16:
VASTUPIDAVUS NAASTREHVIDE TOIMELE

Bituminous mixtures - Test methods - Part 16:
Abrasion by studded tyres

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN 12697-16:2025 sisaldab Euroopa standardi EN 12697-16:2024 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 18.12.2024.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN 12697-16:2025 consists of the English text of the European standard EN 12697-16:2024.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 18.12.2024.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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EUROPEAN STANDARD

EN 12697-16

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2024

ICS 93.080.20

Supersedes EN 12697-16:2016

English Version

Bituminous mixtures - Test methods - Part 16: Abrasion by studded tyres

Mélanges bitumineux - Méthodes d'essai - Partie 16 :
Abrasion par pneus à crampons

Asphalt - Prüfverfahren - Teil 16: Abrieb durch
Spikereifen

This European Standard was approved by CEN on 25 November 2024.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 12697-16:2024) 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of an identical text or by endorsement, at the latest by June 2025, and conflicting national standards shall be withdrawn at the latest by June 2025.

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 12697-16:2016.

EN 12697-16:2024 includes the following significant technical changes with respect to EN 12697-16:2016:

- [2] deletion of “for hot mix asphalt” from the titles of test methods in the EN 12697 series;
- [4.2.1] NOTE deleted;
- [4.2.4] completed paragraph with “Rockwell C-scale” for clarity;
- [4.2.9] revised description of requirement. “Accuracy” amended to “maximum permissible error”;
- [4.3.2] deletion of Clause 4.3.2. Following Clauses re-numbered;
- [4.3.3] clarification of paragraph. Deletion of NOTE. (Clause 4.3.4 in the previous edition);
- [4.7] update of the contents in the test report;
- [5.2.5] introduction of key “A” and “X” to Figure 3;
- [5.2.6], [5.2.7], [5.2.9] “accuracy” amended to “maximum permissible error”;
- [5.3.2] deletion of Clause 5.3.2. Following Clauses re-numbered;
- [5.7] update of the contents in the test report;
- [B.2.1.1] clause title amended to read “Spring balance”. Paragraph amended to clarify that the measuring capacity refers to a balance. Added reference to new sub-Clause B.2.1.2;
- [B.2.1.2] new sub-clause for “Dynamometer” introduced;
- [B.2.1.3] re-numbered sub-clause for “Measuring table”. Previously B.2.1.2;
- [B.2.2.4] NOTE deleted as no longer relevant due to introduction of Clause B.2.1.2;
- [B.2.2.4, Figure B.1] introduction of key “F” to Figure B.1;
- [Bibliography] deleted reference to EN 12697-29, *Bituminous mixtures — Test method for hot mix asphalt — Part 29: Determination of the dimensions of a bituminous specimen*.

A list of all parts in a series can be found on the CEN website: www.cencenelec.eu.

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1 Scope

This document specifies two test methods (method A and method B) for determining the susceptibility of abrasion by studded tyres, tested on cylindrical specimens of bituminous mixtures. The test methods are applicable to bituminous mixtures with aggregate with upper sieve size not exceeding 22 mm.

The tests are applicable to laboratory produced specimens or cores drilled from a slab or pavement.

NOTE 1 Method A originates from the "Prall"-method, which has been improved by comprehensive Nordic research work. The method correlates with abrasion in the field when using paving grade bitumen. According to Nordic experience, by method A the correlation between laboratory and abrasion in field is not established when polymer modified bitumen or rubber modified bitumen, etc. is used.

NOTE 2 Method B originates from Finnish experience and is suitable also when polymer modified bitumen is used. The correlation between laboratory and abrasion in field is not established when rubber is used.

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 12697-27, *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 12697-32, *Bituminous mixtures — Test methods — Part 32: Specimen preparation by vibratory compactor*

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

ISO 3290-1, *Rolling bearings — Balls — Part 1: Steel balls*

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:

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

3.1

abrasion

loss of mass by abrasive action

Note 1 to entry: Expressed as volume loss in millilitres (ml).