Bituminous mixtures - Test methods - Part 42: Amount of foreign matter in reclaimed asphalt



#### EESTI STANDARDI EESSÕNA

#### NATIONAL FOREWORD

See Eesti standard EVS-EN 12697-42:2021 sisaldab Euroopa standardi EN 12697-42:2021 ingliskeelset teksti.

This Estonian standard EVS-EN 12697-42:2021 consists of the English text of the European standard EN 12697-42:2021.

Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.

This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.

Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 20.01.2021.

Date of Availability of the European standard is 20.01.2021.

Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.

The standard is available from the Estonian Centre for Standardisation and Accreditation.

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#### ICS 93.080.20

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## EUROPEAN STANDARD

NORME EUROPÉENNE

### EN 12697-42

## EUROPÄISCHE NORM

January 2021

ICS 93.080.20

Supersedes EN 12697-42:2012

#### **English Version**

# Bituminous mixtures - Test methods - Part 42: Amount of foreign matter in reclaimed asphalt

Mélanges bitumineux - Méthodes d'essai - Partie 42 : Quantité de matériaux étrangers présents dans les agrégats d'enrobés Asphalt - Prüfverfahren - Teil 42: Menge der Fremdpartikel in Ausbauasphalt

This European Standard was approved by CEN on 13 December 2020.

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.

CEN members are the national standards bodies of 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 United Kingdom.



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 12697-42:2021) 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 July 2021, and conflicting national standards shall be withdrawn at the latest by July 2021.

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 12697-42:2012.

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

- The title no longer refers to hot mix asphalt;
- (Clause 1) paragraph, 4th line: "asphalt" amended to read "reclaimed asphalt";
- (Clause 1) NOTE: The wording "asphalt mixtures" and "asphalt mix" amended to read "bituminous mixtures" and "bituminous mixture";
- (Clause 1) NOTE 2 deleted since already described in Scope;
- (ge) NOTES adjusted according to CEN/CENELEC Internal Regulations Part 3:2019;
- (ge) for measurement and expression of results the wording "accuracy" has been amended to "to the nearest";
- (Clause 2) dated reference to EN 932-1 deleted and title corrected for EN 12697-27;
- (Clause 3) introductory sentence amended according to CEN/CENELEC Internal Regulations Part 3:2019 and dated reference to EN 931-1 deleted;
- (3.1) definition of reclaimed asphalt harmonized with EN 13108-8:2016;
- (3.2) cold asphalt with cut-back bitumen excluded from the definition;
- (3.3) additional definition for finer foreign matter introduced. Transferred from Annex A, A.2. (cold asphalt with cut-back bitumen excluded). The following clauses renumbered accordingly;
- (5.2) reworded description for balance (editorial) in line with 7.2;
- (7.1) NOTE 1 regarding cold asphalt with cut-back bitumen deleted since there is no relevance with the purpose of this test method; NOTE 2 deleted;
- (7.2) NOTE 1 adjusted to normal text (new sub-clause 7.2.1). NOTE 2 adjusted to normal text (new sub-clause 7.2.2);
- (7.3); (7.4); (7.5); (8) simplified description with reference to 7.2;
- (Clause 9) required information completed according to CEN/CENELEC Internal Regulations Part 3:2019, Clause 18.5.8. Report of test result in line with EN 13108-8:2016, 4.1;

— (Annex A) title of Annex A amended to read "Amount of finer foreign matter" and the wording "finer foreign matter" implemented where relevant in line with definition in 3.3;

**WARNING** — The methods described in this document require the use of solvents that are hazardous to health and are subject to occupational exposure limits as described in relevant legislation and regulations. Exposure levels are related to both handling procedures and ventilation provision and it is emphasized that adequate training is expected to be given to staff employed in the usage of these substances.

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, al.

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#### 1 Scope

This document specifies a visual method of determining the amount and components of coarse foreign matter in reclaimed asphalt. A method for determining the amount and components of finer foreign matter in reclaimed asphalt is given in Annex A. This method does not completely categorize the foreign matter that can occur in reclaimed asphalt.

NOTE For the use of reclaimed asphalt in bituminous mixtures it is important to know the components in the reclaimed asphalt and to know to what extent coarse foreign matter is present that can influence the properties of the 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 932-1, Tests for general properties of aggregates - Part 1: Methods for sampling

EN 933-2, Tests for geometrical properties of aggregates - Part 2: Determination of particle size distribution - Test sieves, nominal size of apertures

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

#### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 932-1 and the following apply.

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

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

#### 3.1

#### reclaimed asphalt

processed asphalt, suitable and ready to be used as constituent material for asphalt

Note 1 to entry: Processing can include one or more of: milling, crushing, sieving (screening), blending, etc.

#### 3.2

#### coarse foreign matter

matter that is greater in size than 8 mm in reclaimed asphalt not derived from asphalt pavements or surplus production

#### 3.3

#### finer foreign matter

matter that is greater in size than 4 mm but smaller than 8 mm in reclaimed asphalt not derived from asphalt pavements or surplus production

Note 1 to entry: See Annex A. It is also possible to use fractions 6,3/8 mm or 5,6/8 mm, but the result will not be for the finer foreign matter as defined here. The fraction actually tested needs to be clearly associated with the result in any report.