

STN	Asfaltové zmesi Skúšobné metódy Časť 7: Stanovenie objemovej hmotnosti vzoriek z asfaltových zmesí pomocou lúčov gama	STN EN 12697-7 73 6160
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Bituminous mixtures - Test methods - Part 7: Determination of the bulk density of bituminous specimens by gamma rays

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 04/22

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EUROPEAN STANDARD
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EN 12697-7

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Supersedes EN 12697-7:2014

English Version

**Bituminous mixtures - Test methods - Part 7:
Determination of the bulk density of bituminous
specimens by gamma rays**

Mélanges bitumineux - Méthodes d'essai - Partie 7 :
Détermination de la masse volumique apparente des
éprouvettes bitumineuses par les rayons gamma

Asphalt - Prüfverfahren - Teil 7: Bestimmung der
Raumdichte von Asphalt-Probekörpern mit Gamma-
Strahlen

This European Standard was approved by CEN on 26 December 2021.

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
EUROPÄISCHES KOMITEE FÜR NORMUNG

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EN 12697-7:2022 (E)

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European foreword

This document (EN 12697-7:2022) 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of an identical text or by endorsement, at the latest by August 2022, and conflicting national standards shall be withdrawn at the latest by August 2022.

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 12697-7:2014.

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

- the title no longer refers to hot mix asphalt;
- [ge] editorial update according to current standard template;
- Clause 1, scope clarified according the CEN/CENELEC Internal Regulations Part 3:2019, 14.5;
- Clause 4, deletion of the exponential law including equation. Added reference to Clause 8;
- (5.1), footnote ¹⁾ amended to NOTE. Existing NOTE amended to normal text;
- Clause 6, NOTE 1: The period for when specimens are considered to be dry amended to 4 h in line with other parts;
- Clause 6, Footnote ²⁾ amended to NOTE 2. Existing NOTE amended to NOTE 1;
- Clause 6, measurement of the thickness of specimen replaced by “shall be known”;
- (7.3.3), formula for consistency test deleted and replaced with reference to Formula (1);
- Clause 8, editorial adjustments, renumbered formulas and addition of references to formulas;
- Clause 9, revision of data to be reported;
- Clause 10, completion of standard edition to read ISO 5725-2;
- [ge] bibliography added.

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, Turkey and the United Kingdom.

EN 12697-7:2022 (E)**Introduction**

Bulk density measurement in the laboratory using gamma rays is a method which does not affect the properties of the material. It can be included in a series of tests carried out on a given sample. It allows the plotting of a density chart or gradient.

1 Scope

This document specifies a method for measuring the bulk density of pavement mixtures using a transmission-type gamma radiation test bench.

This method applies to cylindrical specimens or parallelepipedal blocks, prepared in a laboratory or cut from a pavement. The thickness and the mass absorption coefficient, which is a function of the chemical composition, are known. The thickness of the specimen body traversed by the radiation is between 30 mm and 300 mm.

The method cannot be applied to materials containing slags, with variable metal content or chemical composition.

NOTE Material containing metal or chemical compositions can affect the absorption of gamma rays.

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*

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