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STN	**Asfaltové zmesi Skúšobné metódy Časť 31: Príprava vzoriek pomocou zhutňovania v gyrátore**	**STN EN 12697-31 73 6160**

Bituminous mixtures - Test methods - Part 31: Specimen preparation by gyratory compactor

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

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English Version

Bituminous mixtures - Test methods - Part 31: Specimen preparation by gyratory compactor

Mélanges bitumineux - Méthodes d'essai - Partie 31 : Confection d'éprouvettes à la presse à compactage giratoire

Asphalt - Prüfverfahren - Teil 31: Herstellung von Probekörpern mit dem Gyrator-Verdichter

This European Standard was approved by CEN on 19 November 2018.

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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 12697-31:2019) 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of an identical text or by endorsement, at the latest by September 2019, and conflicting national standards shall be withdrawn at the latest by September 2019.

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 12697-31:2007.

The following is a list of significant technical changes since the previous edition:

— The series title no longer makes the method exclusively for hot mix asphalt;

— Definition of force-angle calibration chain and internal angle deleted;

— [Clause 1] Advice on use of alternative calibration Annexes revised and changed from Note to normative;

— [3.2] A number of symbols added and the symbol for water content amended to "*w*" throughout the standard;

— [5.1] System to collect excess moisture added to requirements for test device;

— [5.6] Ventilated oven, balance and thermometer added to list of equipment;

— [6.1.2] Existing preparation of specimens made for dry mixtures and separate method for wet mixtures added;

— New subclause [6.1.2.1] calculation of mass of dry mixture modified;

— New subclause [6.1.2.2] calculation of mass of wet mixture added;

— [6.2] Preparation of mixtures revised;

— [7.1.1] and [7.2.3] Value of force replaced by stress;

— [7.1.3] NOTE to setting angle of inclination deleted and extra line added;

— [7.2.1] Start of compaction revised;

— [7.2.2] Number of gyrations at which measurements made clarified;

— [Clause 8] Additional precision data given.

— [Clause 9] Water content added as optional in test reports;

— [A.3.1] Modified to delete reference materials and to specify calibration stress;

— [A.3.1] Value of force replaced by stress;

— Annex B deleted and Annex C has become new Annex B;

— [New Annex B] Compliance requirements clarified;

— [Annex A] and [New Annex B] Same Internal Effective Angle for both Annexes (0,82 ± 0,02)°.

— [New Annex B] Precision statement updated;

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This document specifies the method for compaction of cylindrical specimens of bituminous mixtures using a gyratory compactor.

The method is used for:

— determination of the air voids content of a mixture for a given number of gyrations or derivation of a curve density (or void content) versus number of gyrations;

— preparation of specimens of given height and/or at a predetermined density, for subsequent testing of their mechanical properties.

Annex A and Annex B describe method of complying for the equipment.

This document applies to bituminous mixtures (both those made up in laboratory and those resulting from work site sampling), with an upper aggregate size not larger than 31,5 mm.

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 12697-5, *Bituminous mixtures — Test methods— Part 5: Determination of the maximum density*

EN 12697-6, *Bituminous mixtures — Test methods for hot mix asphalt — Part 6: Determination of bulk density of bituminous specimens*

EN 12697-8, *Bituminous mixtures — Test methods — Part 8: Determination of void characteristics of bituminous specimens*

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

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

EN 12697-38, *Bituminous mixtures — Test methods for hot mix asphalt — Part 38: Common equipment and calibration*

EN ISO 4287, *Geometrical product specifications (GPS) — Surface texture: Profile method — Terms, definitions and surface texture parameters (ISO 4287)*

EN ISO 6508-1, *Metallic materials — Rockwell hardness test — Part 1: Test method (ISO 6508-1)*