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Bituminous mixtures - Test methods - Part 12: Determination of the water sensitivity of bituminous specimens

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. 12/18

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English Version

**Bituminous mixtures - Test methods - Part 12:
Determination of the water sensitivity of bituminous
specimens**

Mélanges bitumineux - Méthodes d'essai - Partie 12:
Détermination de la sensibilité à l'eau des éprouvettes
bitumineuses

Asphalt - Prüfverfahren - Teil 12: Bestimmung der
Wasserempfindlichkeit von Asphalt-Probekörpern

This European Standard was approved by CEN on 26 February 2018.

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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 12697-12:2018) has been prepared by Technical Committee CEN/TC 227 “Road materials”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by December 2018, and conflicting national standards shall be withdrawn at the latest by December 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN not be held responsible for identifying any or all such patent rights.

This document supersedes EN 12697-12:2008.

Compared with EN 12697-12:2008, the following changes have been made:

- the series title no longer makes the method exclusively for hot mix asphalt [Title];
- the structure of the standard has been altered, describing each method separately;
- description of Method A and Method B giving the same result deleted [1];
- restriction for slenderness, less than 0,5, of specimen for Method B deleted [1]. Added in 6.2.5 as requirement;
- EN 12697-5 and EN 12697-7 added. EN 1246 and EN 13108-1 deleted [2];
- introduction of option for compaction with EN 12697-30 (2x50 blows) [5.2.3 b];
- tolerance changed for conditioning at 40 °C from ± 1 °C to ± 2 °C [5.3.2 b)];
- description added of procedure for determining specimen volume, used for calculation of degree of swelling [5.3.2 e];
- changed conditioning temperature for soft grade bitumen [5.3.2 f);
- introduction of table with recommended test temperatures for Method A, depending on binder grade [5.4, Table 1];
- description and requirements for compression testing machine and measuring device added for [6.1];
- modification of tolerance for the constant load. Introduction of Table 2 with Static compaction parameters [6.2.3].

According to the CEN/CENELEC Internal Regulations, the national standards organizations 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.

EN 12697-12:2018 (E)**1 Scope**

This European Standard specifies three test methods for determining the effect of saturation and accelerated water conditioning:

- method A uses the indirect tensile strength of cylindrical specimens of bituminous mixtures;
- method B uses the compression strength of cylindrical specimens of bituminous mixtures;
- method C defines the bonding value for a bituminous mixture 1 h after mixing, where the bonding of bitumen and aggregate can be equated to a bonding value.

Method C is suitable for soft asphalt with bitumen of kinematic viscosity at 60 °C of 4 000 mm²/s or less.

These methods can be used to evaluate the effect of water on asphalt mixtures with or without anti-stripping additives including liquids, such as amines; and fillers, such as hydrated lime or cement.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 for hot mix asphalt — 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 12697-7, *Bituminous mixtures — Test methods for hot mix asphalt — Part 7: Determination of bulk density of bituminous specimens by gamma rays*

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

EN 12697-23, *Bituminous mixtures — Test methods for hot mix asphalt — Part 23: Determination of the indirect tensile strength of bituminous specimens*

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

EN 12697-29, *Bituminous mixtures — Test method for hot mix asphalt — Part 29: Determination of the dimensions of a bituminous specimen*

EN 12697-30, *Bituminous mixtures — Test methods for hot mix asphalt — Part 30: Specimen preparation by impact compactor*

EN 12697-31, *Bituminous mixtures — Test methods for hot mix asphalt — Part 31: Specimen preparation by gyratory compactor*

EN 12697-32, *Bituminous mixtures — Test methods — Part 32: Laboratory compaction of bituminous mixtures by vibratory compactor*

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

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