Bituminous mixtures — Test methods

Part 14: Water content
National foreword

This British Standard is the UK implementation of EN 12697-14:2020. It supersedes BS EN 12697-14:2000, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee B/510/1, Asphalt products.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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Amendments/corrigenda issued since publication

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Bituminous mixtures - Test methods - Part 14: Water content

This European Standard was approved by CEN on 18 November 2019.

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.

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European foreword

This document (EN 12697-14:2020) 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of an identical text or by endorsement, at the latest by August 2020, and conflicting national standards shall be withdrawn at the latest by August 2020.

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 12697-14:2000.

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

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

— [ge] editorial update according to current standard template;

— [ge] NOTEs modified or adjusted to normal text where appropriate according to ISO/IEC Directives – Part 2:2016, 24.5;

— European foreword: reference to the product standards for the applicability of this test method deleted;


— [Clause 3] missing clause, (3 Terms and definitions), introduced. Following clauses renumbered accordingly;


— [figures] moved and placed next to where they are referred to in Clause 5. For better resolution the corresponding figures from EN 12697-1 has been adopted;


A list of all parts in the EN 12697 series can be found on the CEN website.
WARNING — The method described in this standard may require the use of dichloromethane (methylene chloride), this solvent is hazardous to health and is subject to occupational limits as detailed in relevant legislation and regulations.

Exposure levels are related to both handling procedures and ventilation provision and it is emphasized that adequate training should be given to staff employed in the usage of these substances.

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.
1 Scope

This document describes a test method for the determination of the water content of samples of bituminous mixtures. The test method is suitable for checking conformity to a product specification, where required.

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

3 Terms and definitions

No terms and definitions are listed in this document.

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

— ISO Online browsing platform: available at https://www.iso.org/obp/ui

4 Reagents

Solvents used in this document shall be capable of dissolving bitumen and distilling the solution to recover the water present. The solvents shall not decompose in water and shall have a boiling point of not more than 85 °C to prevent the water from boiling.

NOTE Currently all hydrocarbon solvents are regarded as “hazardous” and “environmentally unfriendly” to varying degrees.

Until such time as there is an agreed CEN policy with regard to their usage, each member state should specify its preferred solvent taking into account the Montreal Protocol and views of its own Regulatory Bodies (see also “Warning” in the European foreword).

When trichloroethylene is recovered by distillation for further use, care should be taken to ensure that the solvent still conforms to the appropriate requirements. In particular, acidity may develop and a useful precaution is to store the solvent over calcium oxide in coloured glass or suitable metal containers.

The solvent should be checked regularly to ensure that it is “dry”.

The method consists of preheating a probe attached to a temperature measuring device before measuring the temperature at stated depths in a number of locations while the asphalt is in one of several different places and then calculating the average.