This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.

Designation: D2172/D2172M – 17$^{\varepsilon 1}$

Standard Test Methods for Quantitative Extraction of Asphalt Binder from Asphalt Mixtures[1]

This standard is issued under the fixed designation D2172/D2172M; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

ε[1] NOTE—11.2.5.1 was corrected editorially in May 2018.

1. Scope

1.1 These test methods cover the quantitative determination of asphalt binder content in asphalt mixtures and pavement samples. Aggregate obtained by these methods may be used for sieve analysis using Test Method D5444. This test is not appropriate for testing asphalt mixtures containing coal tar.

1.2 Asphalt binder may be recovered using Test Method D1856, Practice D5404/D5404M, or Practice D7906.

1.3 *Units*—The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in nonconformance with the standard.

1.4 The text of this standard references notes and footnotes which provide explanatory material. These notes and footnotes (excluding those in tables and figures) shall not be considered as requirements of the standard.

1.5 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.* Specific hazards are given in Section 7.

NOTE 1—The results obtained by these test methods may be affected by the age of the material tested, with older samples tending to yield slightly lower asphalt binder content. Best quantitative results are obtained when the test is made on mixtures and pavements shortly after their preparation. It is difficult to remove all the asphalt when some aggregates are used and some chlorides may remain within the mineral matter affecting the measured asphalt content.

1.6 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

C128 Test Method for Relative Density (Specific Gravity) and Absorption of Fine Aggregate

C670 Practice for Preparing Precision and Bias Statements for Test Methods for Construction Materials

D70 Test Method for Density of Semi-Solid Asphalt Binder (Pycnometer Method)

D604 Specification for Diatomaceous Silica Pigment (Withdrawn 2003)[3]

D979/D979M Practice for Sampling Bituminous Paving Mixtures

D1461 Test Method for Moisture or Volatile Distillates in Asphalt Mixtures

D1856 Test Method for Recovery of Asphalt From Solution by Abson Method

D2111 Test Methods for Specific Gravity and Density of Halogenated Organic Solvents and Their Admixtures

D3666 Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials

D4753 Guide for Evaluating, Selecting, and Specifying Balances and Standard Masses for Use in Soil, Rock, and Construction Materials Testing

D5404/D5404M Practice for Recovery of Asphalt from Solution Using the Rotary Evaporator

D5444 Test Method for Mechanical Size Analysis of Extracted Aggregate

D6368 Specification for Vapor-Degreasing Solvents Based on ***normal***-Propyl Bromide and Technical Grade ***normal***-Propyl Bromide

[1] These test methods are under the jurisdiction of ASTM Committee D04 on Road and Paving Materials and are the direct responsibilities of Subcommittee D04.25 on Analysis of Asphalt Mixtures.

Current edition approved April 1, 2017. Published April 2017. Originally approved in 1963. Last previous edition approved in 2011 as D2172/D2172M – 11. DOI: 10.1520/D2172_D2172M-17E01.

[2] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

[3] The last approved version of this historical standard is referenced on www.astm.org.

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