Designation: D6935 – 22

Standard Test Method for Determining Cement Mixing of Emulsified Asphalt[1]

This standard is issued under the fixed designation D6935; 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.

1. Scope

1.1 This test method is intended to be a mixing test used to identify or classify a slow-setting, SS or CSS, type of emulsified asphalt.

1.2 The values stated in SI units are to be regarded as standard. No other units of measure are included in this standard.

1.3 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 for the standard.

1.4 *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.*

1.5 *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]

C115/C115M Test Method for Fineness of Portland Cement by the Turbidimeter (Withdrawn 2018)[3]

C150/C150M Specification for Portland Cement

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

D6934 Test Method for Residue by Evaporation of Emulsified Asphalt

D6997 Test Method for Distillation of Emulsified Asphalt

E11 Specification for Woven Wire Test Sieve Cloth and Test Sieves

3. Significance and Use

3.1 The result of this test method indicates the ability of a slow-setting emulsified asphalt to mix with a finely divided, high-surface-area material (high early strength, Type III portland cement) without breaking the emulsified asphalt.

NOTE 1—The quality of the results produced by this standard are dependent on the competence of the personnel performing the procedure and the capability, calibration, and maintenance of the equipment used. Agencies that meet the criteria of Specification D3666 are generally considered capable of competent and objective testing, sampling, inspection, etc. Users of this standard are cautioned that compliance with Specification D3666 alone does not completely ensure reliable results. Reliable results depend on many factors; following the suggestions of Specification D3666 or some similar acceptable guideline provides a means of evaluating and controlling some of those factors.

4. Sample Conditioning for Testing

4.1 All emulsified asphalts shall be properly stirred to achieve homogeneity before testing.

4.2 All emulsified asphalts with viscosity testing requirements of 50 °C shall be heated to 50 ± 3 °C in the original sample container in a water bath or oven. The container should be vented to relieve pressure. After the sample reaches 50 ± 3 °C, stir the sample to achieve homogeneity.

4.3 Emulsified asphalts with viscosity testing requirements of 25 °C should be mixed or stirred at 25 ± 3 °C in the original sample container to achieve homogeneity.

NOTE 2—Emulsified asphalts with viscosity testing requirements of 25 °C may be heated and stirred as specified in 4.2, if necessary. In the event the 4.2 method is used, the sample should be cooled to 25 ± 3 °C before testing.

5. Apparatus

5.1 *Sieves*—A 180 µm sieve and a 1.40 mm sieve with a diameter of approximately 75 mm, made of wire cloth conforming to Specification E11.

5.2 *Pan*—A tin box cover or shallow metal pan of appropriate size to fit over the bottom of the standard sieve.

5.3 *Mixing Bowl*—A round-bottom metal dish or a kitchen saucepan of approximately 500 mL capacity.

[1] This test method is under the jurisdiction of ASTM Committee D04 on Road and Paving Materials and is the direct responsibility of Subcommittee D04.42 on Emulsified Asphalt Test.

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[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.