



Designation: **D6937—08 D6937 – 16**

## Standard Test Method for Determining Density of Emulsified Asphalt<sup>1</sup>

This standard is issued under the fixed designation D6937; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope

1.1 This test method covers the determination of density of emulsified asphalt used in highway construction. This unit is computed by determining the mass of an emulsified asphalt contained in a standard measure of known volume.

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

1.3 *This test method 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 and health practices and determine the applicability of regulatory limitations prior to use.*

### 2. Referenced Documents

2.1 *ASTM Standards:*

**E1 Specification for ASTM Liquid-in-Glass Thermometers**

### 3. Significance and Use

3.1 This test method provides a controlled laboratory test for the determination of quantitative volumes of emulsified asphalt for use in bills of lading, invoicing, and application rates.

### 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  $50 \pm 3^\circ\text{C}$  in the original sample container in a water bath or oven. The container should be vented to relieve pressure. After the sample reaches  $50 \pm 3^\circ\text{C}$ , stir the sample to achieve homogeneity.

4.3 Emulsified asphalts with viscosity testing requirements of 25°C should be mixed or stirred at  $25 \pm 3^\circ\text{C}$  in the original sample container to achieve homogeneity.

NOTE 1—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  $25 \pm 3^\circ\text{C}$  before testing.

### 5. Apparatus

5.1 *Density Cup*—Stainless steel measure of known standard volume (83.2 mL).

5.2 *Balance*—capable of being read to the nearest 0.01 g.

5.3 *Water Bath*—constant-temperature, maintained at  $25 \pm 0.5^\circ\text{C}$ .

5.4 *Thermometer*—ASTM 17C or 17F conforming to the requirements of Specification E1 or equivalent thermometric device.

### 6. Procedure

6.1 Stir the emulsified asphalt sample and place in a constant-temperature water bath maintained at  $25 \pm 0.5^\circ\text{C}$  for approximately 1 hr. and bring sample to temperature.

6.2 Place the measure and its cap on the balance, tare, and zero the balance.

<sup>1</sup> 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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