



Designation: D2397 – 05

## Standard Specification for Cationic Emulsified Asphalt<sup>1</sup>

This standard is issued under the fixed designation D2397; 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.

*This standard has been approved for use by agencies of the Department of Defense.*

### 1. Scope

1.1 This specification covers seven grades of cationic emulsified asphalt for use in pavement construction in the manner designated.

### 2. Referenced Documents

2.1 *ASTM Standards:*<sup>2</sup>

D140 Practice for Sampling Bituminous Materials

D244 Test Methods and Practices for Emulsified Asphalts

D3910 Practices for Design, Testing, and Construction of Slurry Seal

D6930 Test Method for Settlement and Storage Stability of Emulsified Asphalts

D6933 Test Method for Oversized Particles in Emulsified Asphalts (Sieve Test)

D6935 Test Method for Determining Cement Mixing of Emulsified Asphalt

D6936 Test Method for Determining Demulsibility of Emulsified Asphalt

D6997 Test Method for Distillation of Emulsified Asphalt

### 3. Requirements

3.1 The emulsified asphalt shall be tested within 14 days of delivery. The emulsified asphalt shall be homogeneous after

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<sup>2</sup> 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.

thorough mixing provided separation has not been caused by freezing. Emulsions separated by freezing shall not be tested.

3.2 Emulsified asphalt shall conform to the requirements prescribed in Table 1.

### 4. Sampling

4.1 Samples of emulsified asphalt shall be taken in accordance with Practice D140.

4.2 Samples shall be stored in clean, airtight sealed containers at a temperature of not less than 4°C (39.2°F) until tested.

### 5. Test Methods

5.1 The properties of the emulsified asphalts given in Table 1 shall be determined in accordance with the following ASTM test methods:

5.1.1 *Viscosity*—Test Methods D244.

5.1.2 *Storage Stability*—Test Method D6930.

5.1.3 *Demulsibility*—Test Method D6936.

5.1.4 *Coating Ability and Water Resistance*—Test Methods D244.

5.1.5 *Particle Charge*—Test Methods D244.

5.1.6 *Sieve Test*—Test Method D6933, except use distilled water in all wetting and washing operations in place of the nonionic surfactant solution (1 %).

5.1.7 *Cement Mixing*—Test Method D6935.

5.1.8 *Distillation*—Test Method D6997.

5.1.9 *Tests on Residue from Distillation*—Test Methods D244.

### 6. Keywords

6.1 cationic; emulsified asphalt; emulsion; medium setting; rapid setting; slow setting