



Standard Test Methods and Practices for Emulsified Asphalts¹

This standard is issued under the fixed designation D244; 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.

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

1. Scope

1.1 These test methods and practices, given under the headings titled Composition, Consistency, Stability, and Examination of Residue, cover the examination of asphalt emulsions composed principally of a semisolid or liquid asphaltic base, water, and an emulsifying agent. The test methods cover the following tests and practices:

Test	Sections
Composition:	
Water Content	4 – 10
Residue and Oil Distillate by Distillation	See Test Method D6997
Residue by Evaporation	See Test Method D6934
Particle Charge of Cationic Emulsified Asphalts	See Practice D7402
Consistency:	
Viscosity (Saybolt Furol)	See Test Method D7496
Stability:	
Demulsibility	See Test Method D6936
Settlement	See Test Method D6930
Cement Mixing	See Test Method D6935
Sieve Test	See Test Method D6933
Aggregate Coating	See Practice D6998
Miscibility with Water	See Practice D6999
Freezing	See Practice D6929
Coating Ability and Water Resistance	11 – 18
Storage Stability of Asphalt Emulsion	See Test Method D6930
Examination of Residue	19 – 26
Identification Test for Rapid Setting Cationic Emulsified Asphalt	27 – 34
Identification of Cationic Slow Set Emulsions	See Practice D7402
Field Coating Test on Emulsified Asphalts	35 – 40

Emulsified Asphalt/Job Aggregate Coating Test	41 – 46
Density of Emulsified Asphalt	See Test Method D6937
Residue by Low-Temperature Vacuum Distillation	See Test Method D7403

1.2 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

1.3 *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.*

1.4 *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

- D5/D5M Test Method for Penetration of Bituminous Materials
- D70/D70M Test Method for Specific Gravity and Density of Semi-Solid Asphalt Binder (Pycnometer Method)
- D86 Test Method for Distillation of Petroleum Products and Liquid Fuels at Atmospheric Pressure
- D113 Test Method for Ductility of Asphalt Materials
- D128 Test Methods for Analysis of Lubricating Grease
- D139 Test Method for Float Test for Bituminous Materials
- D140/D140M Practice for Sampling Asphalt Materials
- D2042 Test Method for Solubility of Asphalt Materials in Trichloroethylene or Toluene
- D3289 Test Method for Density of Semi-Solid and Solid Asphalt Materials (Nickel Crucible Method)

¹ These test methods and practices are under the jurisdiction of ASTM Committee D04 on Road and Paving Materials and are the direct responsibility of Subcommittee D04.42 on Emulsified Asphalt Test.

Current edition approved Oct. 1, 2023. Published October 2023. Originally approved in 1926. Last previous edition approved in 2017 as D244 – 09 (2017). DOI: 10.1520/D0244-23.

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.