



Designation: D1227/D1227M – 13 (Reapproved 2024)

Standard Specification for Emulsified Asphalt Used as a Protective Coating for Roofing¹

This standard is issued under the fixed designation D1227/D1227M; 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 This specification covers emulsified asphalt suitable for use as a protective coating for built-up roofs and other exposed surfaces with inclines of not less than 4 % or 42 mm/m [$\frac{1}{2}$ in./ft].

1.2 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system are not necessarily exact equivalents; therefore, to ensure conformance with the standard, each system shall be used independently of the other, and values from the two systems shall not be combined.

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

D2939 Test Methods for Emulsified Bitumens Used as Protective Coatings (Withdrawn 2012)³

¹ This specification is under the jurisdiction of ASTM Committee D08 on Roofing and Waterproofing and is the direct responsibility of Subcommittee D08.09 on Liquid Applied Coatings for Roofing and Asphaltic Concrete Pavement.

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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.

3. Classification

3.1 *Type II, Class 1*—Emulsified asphalt prepared with mineral colloid emulsifying agents and containing fibers other than asbestos.

3.2 *Type II, Class 2*—Emulsified asphalt prepared with chemical emulsifying agents and containing fillers or fibers other than asbestos.

3.3 *Type III, Class 1*—Emulsified asphalt prepared with mineral colloid emulsifying agents, without fibrous reinforcement.

3.4 *Type III, Class 2*—Emulsified asphalt prepared with chemical emulsifying agents, without fibrous reinforcement.

4. Physical Requirements

4.1 The emulsion shall be of suitable consistency for application above freezing, in relatively thick films by brush, mop, or suitable spray equipment without thinning with water or heating, and shall bond to either damp or dry surfaces.

4.2 The emulsion shall be of smooth, uniform consistency without separation or settlement in storage to the extent that it cannot be readily dispersed by ordinary stirring.

4.3 Type II emulsion, after stirring to homogeneity, shall be suitable for application by brush or mop in single coats of not less than 1.0 L/m² [$2\frac{1}{2}$ U.S. gal/100 ft²] without rundown on inclines up to and including vertical.

4.4 Type II emulsion, after stirring to homogeneity, shall be suitable for application by proper spray equipment to produce a substantially self-leveling film of not less than 1.0 L/m² [$2\frac{1}{2}$ U.S. gal/100 ft²] without rundown on inclines up to and including 50 % or 500 mm/m [6 in./ft].

4.5 Type III emulsion, after stirring to homogeneity, shall be suitable for application by brush or proper spray equipment at a rate of not less than 1.0 L/m² [$2\frac{1}{2}$ U.S. gal/100 ft²] without rundown on vertical concrete surfaces with open-mesh fabric reinforcement.

4.6 The emulsion shall conform to the physical properties prescribed in [Table 1](#).