



Designation: D4866/D4866M – 88 (Reapproved 2023)

Standard Performance Specification for Coal-Tar Pitch Emulsion Pavement Sealer Mix Formulations Containing Mineral Aggregates and Optional Polymeric Admixtures¹

This standard is issued under the fixed designation D4866/D4866M; 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 performance specification covers mixtures of emulsified coal-tar pitch (mineral colloid type), mineral aggregates, and optional polymeric admixtures that are used as a weather-protective and straight aliphatic hydrocarbon resistant coatings over bituminous pavements of airports, parking areas, and driveways.

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 may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in nonconformance with the standard.

1.3 The following safety hazards statement applies only to the test method portion, Section 6, of this specification: *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

D466 Test Methods for Films Deposited From Bituminous

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.

Emulsions (Withdrawn 1998)³

D2939 Test Methods for Emulsified Bitumens Used as Protective Coatings (Withdrawn 2012)³

D3699 Specification for Kerosine

D5727/D5727M Specification for Emulsified Refined Coal Tar (Mineral Colloid Type)

3. Materials

3.1 Ratios of component materials that make up the mixture to be tested, as well as detailed specifications for the mineral aggregate and optional polymeric admixture shall be as agreed upon between the purchaser and the seller.

3.2 The base coal-tar emulsion shall meet the requirements of Specification D5727/D5727M.

3.3 The mineral aggregate shall be either a natural or manufactured product composed of clean, hard, durable, uncoated particles, free from dirt, organic matter, and other objectionable substances.

3.4 The optional polymeric admixture shall be any polymer or mixtures thereof, with added compounding ingredients of such nature and quality that will allow the admixture to be compatible with and enhance the performance of mineral aggregate modified coal-tar emulsion pavement sealers.

3.5 The water used in mixing shall be potable and free from harmful soluble salts. The temperature of the water shall be at least 10 °C [50 °F].

4. Physical Requirements

4.1 The mixture as applied shall be of uniform consistency and suitable for application to properly prepared or primed surfaces at a rate of 0.4 to 1.0 L/m² [1.0 to 2.5 gal/100 ft²] without appreciable drainage on inclines up to 0.8 % [0.1 in./ft].

NOTE 1—Pavement and ambient temperature should be not less than 7 °C [45 °F] at the time of application and for at least 12 h thereafter, with no precipitation of rain, snow, and so forth, until the emulsion has dried.

NOTE 2—When these materials are applied in commercial quantities,

³ The last approved version of this historical standard is referenced on www.astm.org.