



Designation: D 5727 – 00

Standard Specification for Emulsified Refined Coal Tar (Mineral Colloid Type)¹

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1. Scope

1.1 This specification covers mineral-colloid-stabilized, concentrated, emulsified, refined coal tar suitable for use as weather-protective and aliphatic-solvent resistant coatings over bituminous pavements such as those found at airports, parking areas, and driveways. The specification for this material was previously covered by Federal Specification RP355.

NOTE 1—Dilute the concentrated emulsion after testing and prior to application to meet the application specification requirements. Application shall be made in accordance with Practice D 3423.

1.2 The values stated in SI units are to be regarded as the standard. The inch-pound units shown in parentheses are for information only.

1.3 The following precautionary caveat pertains only to the test methods 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 and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

- 2.1 *ASTM Standards:*²
- D 95 Test Method for Water in Petroleum Products and Bituminous Materials by Distillation²
 - D 140 Practice for Sampling Bituminous Materials³
 - D 490 Specification for Tar³
 - D 2939 Test Methods for Emulsified Bitumens Used as Protective Coatings⁴
 - D 3423 Practice for Application of Emulsified Coal-Tar Pitch (Mineral Colloid Type)⁴
- 2.2 *Federal Specification:*⁵

¹ This specification is under the jurisdiction of ASTM Committee D08 on Roofing, Waterproofing, and Bituminous Materials and is the direct responsibility of Subcommittee D08.09 on Bituminous Emulsions.

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² *Annual Book of ASTM Standards*, Vol 05.01.

³ *Annual Book of ASTM Standards*, Vol 04.03.

⁴ *Annual Book of ASTM Standards*, Vol 04.04.

⁵ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.

Federal Specification RP355

3. Materials and Manufacture

3.1 The emulsion shall be made using tars having viscosities of RT-11 or higher. The tars shall conform to the requirements of Specification D 490.

3.2 The emulsion shall be fortified with antifreeze when specified.

4. Physical Requirements

4.1 The emulsion shall be homogeneous and exhibit no separation or coagulation of components that cannot be overcome by moderate stirring.

4.2 The material shall conform to the physical properties prescribed in Table 1.

5. Sampling

5.1 Sample in accordance with Practice D 140.

6. Test Methods

6.1 Use Test Methods D 2939 or, as noted (Federal Specification RP355):

- 6.1.1 Uniformity;
- 6.1.2 Wet film continuity;
- 6.1.3 Resistance to freezing (when specified);
- 6.1.4 Density;
- 6.1.5 Residue by evaporation;
- 6.1.6 Water content, Test Method D 95;
- 6.1.7 Resistance to volatilization;
- 6.1.8 Solubility of residue in CS²;
- 6.1.9 Ash of residue;
- 6.1.10 Drying time;
- 6.1.11 Resistance to heat;
- 6.1.12 Resistance to kerosene;
- 6.1.13 Resistance to water; and
- 6.1.14 Flexibility.

7. Inspection

7.1 Inspection of material shall be made as agreed upon between the purchaser and the supplier.