



Designation: D6946 – 03

Standard Specification for Emulsified Refined Coal-Tar (Driveway Sealer, Ready to Use, Primarily Residential Grade)¹

This standard is issued under the fixed designation D6946; 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 specification covers mineral-colloid-stabilized, emulsified refined coal tar suitable for use as a weather-protective and petroleum (aliphatic) solvent resistant coating over bituminous concrete pavements.

1.2 Both products specified are prepackaged ready to use driveway sealers primarily for retail homeowner use.

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 and health practices and determine the applicability of regulatory requirements prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*²

[C136 Test Method for Sieve Analysis of Fine and Coarse Aggregates](#)

[C142 Test Method for Clay Lumps and Friable Particles in Aggregates](#)

[D140 Practice for Sampling Bituminous Materials](#)

[D490 Specification for Road Tar](#)

[D2939 Test Methods for Emulsified Bitumens Used as Protective Coatings](#)

[D5727 Specification for Emulsified Refined Coal Tar \(Mineral Colloid Type\)](#)

3. Terminology

3.1 For both types of mixtures, the ingredients are combined during the manufacturing process and shipped ready-to-use.

3.1.1 *Type I material*—a mixture of refined coal tar emulsion meeting Specification [D5727](#), water, and optional additive.

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 Bituminous Emulsions.

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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.

3.1.2 *Type II material*—a mixture of refined coal tar emulsion meeting Specification [D5727](#), water, aggregate, and optional additive.

4. Classification

4.1 This specification is designed to give specifying authorities the information necessary to ensure that the appropriate refined coal tar emulsion mixtures are specified for protecting bituminous concrete pavements where fuel resistance is required.

5. Materials and Manufacture

5.1 *Base Refined Coal Tar Emulsion*—This emulsion shall be made using binders prepared from a high temperature refined coal tar conforming to the requirements of Specification [D490](#) for RT11 or higher. Base refined coal tar emulsion shall be in accordance with all requirements of Specification [D5727](#).

5.2 *Aggregate*—Aggregate is used in Type II materials to improve traction and wearability. The aggregate shall be either a natural or manufactured aggregate composed of clean, hard, durable particles free of clay and other objectionable material when tested in accordance with Test Method [C142](#). (Boiler slag has been used successfully.)

NOTE 1—It is recommended that the nominal maximum size of the aggregate not exceed the 0.6 mm (No. 30) sieve when tested in accordance with Test Method [C136](#).

6. Performance Requirements

6.1 *Composition*—The refined coal tar emulsion seal coat shall consist of a mixture of ingredients listed in Section 5 for either specific Type I or II and shall meet all the requirements of [Table 1](#).

6.2 *Aggregate Verification Test*—In order to verify that the proper amount of aggregate specified in [Table 1](#) is contained in the mixture, conduct an aggregate content test according to Test Methods [D2939](#).

6.3 The material, after stirring to homogeneity, shall be suitable for application brush, squeegee, roller, or suitable spray equipment without heating. The mixture shall be of suitable consistency for application by the selected method in single coats of approximately (depending on pavement texture)