Designation: D5643/D5643M – 06 (Reapproved 2018)

Standard Specification for Coal Tar Roof Cement, Asbestos Free[1]

This standard is issued under the fixed designation D5643/D5643M; 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 coal tar roof cement suitable for trowel application in coal tar roofing and flashing systems.

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 non-conformance with the standard.

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]

D4 Test Method for Bitumen Content

D95 Test Method for Water in Petroleum Products and Bituminous Materials by Distillation

D140/D140M Practice for Sampling Asphalt Materials

D3143/D3143M Test Method for Flash Point of Cutback Asphalt with Tag Open-Cup Apparatus

D3409/D3409M Test Method for Adhesion of Asphalt-Roof Cement to Damp, Wet, or Underwater Surfaces

D6511/D6511M Test Methods for Solvent Bearing Bituminous Compounds

3. Materials and Manufacture

3.1 Coal tar roof cement shall consist of a processed coal tar base, volatile solvents, and mineral stabilizers, excluding asbestos, mixed to a smooth uniform consistency suitable for trowel application.

4. Chemical Composition

4.1 The composition of coal tar roof cement shall conform to the requirements prescribed in Table 1.

5. Performance Requirements

5.1 *Uniformity*—A thoroughly stirred sample shall show no separation of solvent or settling that cannot be overcome by moderate stirring after standing for 72 h at room temperature in a closed container.

5.2 *Workability*—The cement shall be of such a consistency that it will spread readily and permit troweling smooth coatings 1.6 to 3.2 mm [1⁄16 to 1⁄8 in.] thick on vertical surfaces.

5.3 *Behavior at 60°C [140°F]*—The cement shall show no evidence of blistering, and sag or slide shall be no greater than 6 mm [¼ in.].

5.4 *Adhesion to Wet Surfaces*—Minimum average 75 %.

5.5 *Flash Point*—38°C [100°F] minimum.

6. Sampling

6.1 Sample the material from the original container immediately after stirring to a uniform consistency, in accordance with Practice D140/D140M.

6.2 Restir the samples to obtain uniformity immediately before withdrawing portions for individual tests.

7. Test Methods

7.1 *Water*—See Test Method D95.

7.2 *Nonvolatile Matter*—Determine nonvolatile matter in accordance with Test Methods D6511/D6511M, Section 7 (Nonvolatile Content).

7.3 *Insoluble Matter*—See Test Method D4, Procedure No. 2.

7.4 *Behavior at 60°C [140°F]*—See Test Methods D6511/D6511M, Section 12 (Behavior at 60°C [140°F]).

[1] This specification is under the jurisdiction of ASTM Committee D08 on Roofing and Waterproofing and is the direct responsibility of Subcommittee D08.05 on Solvent-Bearing Bituminous Compounds for Roofing and Waterproofing.

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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.