



# Standard Specification for Coal Tar Roof Cement, Asbestos Free<sup>1</sup>

This standard is issued under the fixed designation D 5643; 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.

<sup>ε1</sup> NOTE—Editorially switched from English dominant to SI dominant.

## 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 SI units are to be regarded as the standard. The values given in parentheses are for information only.

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 limitations prior to use.*

## 2. Referenced Documents

2.1 *ASTM Standards:*

D 4 Test Method for Bitumen Content<sup>2</sup>

D 95 Test Method for Water in Petroleum Products and Bituminous Materials by Distillation<sup>3</sup>

D 140 Practice for Sampling Bituminous Materials<sup>4</sup>

D 2822 Specification for Asphalt Roof Cement<sup>2</sup>

D 3143 Test Method for Flash Point of Cutback Asphalt with Tag Open-Cup Apparatus<sup>4</sup>

D 3409 Test Method for Adhesion of Asphalt-Roof Cement to Damp, Wet, or Underwater Surfaces<sup>2</sup>

## 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

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<sup>2</sup> *Annual Book of ASTM Standards*, Vol 04.04.

<sup>3</sup> *Annual Book of ASTM Standards*, Vol 05.01.

<sup>4</sup> *Annual Book of ASTM Standards*, Vol 04.03.

TABLE 1 Composition of Coal Tar Roof Cement

Water, volume % max	2.0
Nonvolatile matter, mass % min	65
Insoluble matter, mass %	15 to 40

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 ( $\frac{1}{16}$  to  $\frac{1}{8}$  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 ( $\frac{1}{4}$  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 D 140.

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

## 7. Test Methods

7.1 *Water*—See Test Method D 95.

7.2 *Nonvolatile Matter*—Determine nonvolatile matter in accordance with Specification D 2822, except heat the dish and contents in an oven at 105 to 110°C (221 to 230°F).

7.3 *Insoluble Matter*—See Test Method D 4, Procedure No. 2.

7.4 *Behavior at 60°C (140°F)*—See Specification D 2822, 9.5.

7.5 *Adhesion to Wet Surfaces*—See Test Method D 3409.

7.6 *Flash Point*—See Test Method D 3143.

## 8. Inspection

8.1 Inspection of the material shall be agreed upon between the purchaser and the supplier.

## 9. Rejection and Resubmittal

9.1 Failure to conform to any of the requirements prescribed in this specification may constitute grounds for rejection. In the case of rejection, the supplier shall have the right to reinspect

the rejected material and resubmit the lot after removal of those packages not conforming to the requirements.

#### **10. Packaging and Package Marking**

10.1 The material shall be suitably packaged to permit acceptance by the carrier and to afford adequate protection from the normal hazards of handling and shipment.

10.2 Each container shall be plainly marked with the net

contents, the ASTM designation, name, brand, or trademark of the manufacturer or supplier and wording indicating that the material is asbestos free. Applicable government regulations for labeling of combustible liquids shall be followed.

#### **11. Keywords**

11.1 asbestos free; cement; coal tar; roofing

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