



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

This standard is issued under the fixed designation D 4022; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

*This standard has been approved for use by agencies of the Department of Defense.*

$\epsilon^1$  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 fillers including asbestos fibers, mixed to a smooth, uniform consistency suitable for trowel application.

### 4. Composition

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

TABLE 1 Composition of Coal Tar Roof Cement

|                            | min | max |
|----------------------------|-----|-----|
| Water, volume %            | ... | 1.0 |
| Nonvolatile matter, mass % | 65  | ... |
| Insoluble matter, mass %   | 15  | 40  |

### 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 ( $\frac{1}{16}$  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 the 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 samples to obtain uniformity immediately before withdrawing portions for individual tests.

### 7. Test Methods

7.1 *Water*—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*—Test Method D 4, Procedure No. 2.

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

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

7.6 *Flash Point*—Test Method D 3143.

### 8. Inspection

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

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee D08 on Roofing, Waterproofing, and Bituminous Materials and is the direct responsibility of Subcommittee D08.05 on Solvent-Bearing Bituminous Compounds for Roofing and Waterproofing.

Current edition approved Dec. 15, 1994. Published February 1995. Originally published as D4022 – 81. Last previous edition D4022 – 81.

<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.