

Standard Specification for Asphalt Roof Cement, Asbestos-Free¹

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

 ε^1 NOTE—Units information was editorially corrected in June 2012.

1. Scope

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1.1 This specification covers asbestos-free asphalt roof cement suitable for trowel application to roofings and flashings.

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 The following precautionary caveat pertains only to the test method portion, Section 8 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

D312 Specification for Asphalt Used in Roofing

- D449 Specification for Asphalt Used in Dampproofing and Waterproofing
- D946 Specification for Penetration-Graded Asphalt Cement for Use in Pavement Construction
- D6511 Test Methods for Solvent Bearing Bituminous Compounds

3. Classification

3.1 *Type I*—Type I is made from asphalts characterized as self-healing, adhesive, and ductile, and conforming to the

requirements of Specification D312, Type I; Specification D449, Types I or II; or Specification D946.

3.1.1 Class I is used for application to essentially dry surfaces.

3.1.2 Class II is used for application to damp, wet, or underwater surfaces and dry surfaces.

3.2 *Type II*—Type II is made from asphalt characterized by high softening point and relatively low ductility, and conforming to the requirements of Specification D312, Types II or III; or Specification D449, Types II or III.

3.2.1 Class I is used for application to essentially dry surfaces.

3.2.2 Class II is used for application to damp, wet, or underwater surfaces.

4. Materials and Manufacture

4.1 Asphalt roof cement shall consist of an asphalt base, volatile petroleum solvents, and mineral and/or other stabilizers, excluding asbestos, mixed to a smooth, uniform consistency suitable for trowel application.

5. Composition

5.1 Asphalt roof cement complying with this specification shall conform to the following composition limits:

	min	max
Water content, %		3.0
Nonvolatile content, %	70	
Mineral and/or other stabilizers, %	15	40
Bitumen (asphalt), %	35	65

6. Physical Requirements

6.1 *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.

6.2 *Workability*—The cement shall be of a consistency that will spread readily and permit troweling smooth coatings, 2 to 6 mm [$^{1}/_{16}$ to $^{1}/_{4}$ in.] thick, on prepared roofing, saturated felt, and metal surfaces at ambient temperatures above 10°C [50°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.

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6.3 *Behavior at* $60^{\circ}C$ [140°*F*]—The cement shall show no evidence of blistering, and sag or slide shall be no greater than 6 mm [¹/₄ in.].

6.4 *Pliability at 0°C [32°F]*—There shall be no cracking or separation of the cement from the metal.

7. Sampling

7.1 See Sampling section of Test Methods D6511.

8. Test Methods

8.1 Determine composition and physical requirements by using the procedures in Test Methods D6511.

9. Precision and Bias

9.1 See Precision and Bias section of Test Methods D6511.

10. Inspection

10.1 Inspection of the material shall be agreed upon by the purchaser and the seller as part of the purchase contract.

11. Rejection and Rehearing

11.1 Failure to conform to any of the requirements prescribed in this specification shall constitute grounds for rejection. In cases of rejection, the seller shall have the right to reinspect and resubmit the lot after removal of those packages not conforming to the specified requirements.

12. Packaging and Package Marking

12.1 All products shall be packaged and labeled in accordance with applicable regulations. Each package shall be marked to indicate the applicable ASTM specification, including Type and Class.

13. Keywords

13.1 asbestos-free; asphalt; roof cement

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