Designation: D 4586 – 00

Standard Specification for Asphalt Roof Cement, Asbestos-Free[1]

This standard is issued under the fixed designation D 4586; 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.

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

1. Scope

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

1.2 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:*

D 312 Specification for Asphalt Used in Roofing[2]

D 449 Specification for Asphalt Used in Dampproofing and Waterproofing[2]

D 946 Specification for Penetration-Graded Asphalt Cement for Use in Pavement Construction[3]

D 6511 Test Methods for Solvent Bearing Bituminous Compounds[2]

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 D 312, Type I; Specification D 449, Types I or II; or Specification D 946.

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.

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 D 312, Types II or III; or Specification D 449, 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
Moisture, %	...	3.0
Nonvolatile matter, %	70	...
Mineral and/or other stabilizers, %	15	40
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).

6.3 *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 (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 Section 4 of Test Methods D 6511.

8. Test Methods

8.1 Determine composition and physical requirements by using the procedures in Test Methods D 6511.

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[1] 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 July 10, 2000. Published September 2000. Originally published as D 4586 – 86. Last previous edition D 4586 – 93.

[2] *Annual Book of ASTM Standards*, Vol 04.04.

[3] *Annual Book of ASTM Standards*, Vol 04.03.