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# Standard Specification for Asphalt Used in Dampproofing and Waterproofing<sup>1</sup>

This standard is issued under the fixed designation D449; 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 ( $\varepsilon$ ) indicates an editorial change since the last revision or reapproval.

## 1. Scope

1.1 This specification covers three types of asphalt suitable for use as a mopping coat in dampproofing; or as a plying or mopping cement in the construction of membrane waterproofing systems with felts in accordance with Specification D226; fabrics in accordance with Specifications D173 or D1668 (asphalt types); asphalt-impregnated glass mat in accordance with Specifications D2178; and with primer in accordance with Specification D41.

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:<sup>2</sup>

D5 Test Method for Penetration of Bituminous Materials D36 Test Method for Softening Point of Bitumen (Ring-and-Ball Apparatus)

- D41 Specification for Asphalt Primer Used in Roofing, Dampproofing, and Waterproofing
  - D92 Test Method for Flash and Fire Points by Cleveland Open Cup Tester
  - D113 Test Method for Ductility of Bituminous Materials
  - **D140** Practice for Sampling Bituminous Materials
  - D173 Specification for Bitumen-Saturated Cotton Fabrics Used in Roofing and Waterproofing
  - D226 Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing

- D1668 Specification for Glass Fabrics (Woven and Treated) for Roofing and Waterproofing
- D2042 Test Method for Solubility of Asphalt Materials in Trichloroethylene
- D2178 Specification for Asphalt Glass Felt Used in Roofing and Waterproofing
- D3461 Test Method for Softening Point of Asphalt and Pitch (Mettler Cup-and-Ball Method)

## 3. Classification

3.1 Asphalts covered by this specification include three types:

3.1.1 *Type I*—A soft, adhesive, "self-healing" asphalt that flows easily under the mop and is suitable for use below grade under uniformly moderate temperature conditions both during the process of installation and during service.

Note 1—Type I asphalt is suitable for foundations, tunnels, subways, and so forth.

3.1.2 *Type II*—A somewhat less susceptible asphalt than Type I, with good adhesive and "self-healing" properties, suitable for use above grade where it will not be exposed to temperatures exceeding  $50^{\circ}$ C (122°F).

NOTE 2—Type II asphalt is suitable for railroad bridges, culverts, retaining walls, tanks, dams, conduits, spray decks, and so forth.

3.1.3 *Type III*—An asphalt less susceptible to temperature than Type II, with good adhesive properties, and suitable for use above grade on vertical surfaces exposed to direct sunlight or temperatures above  $50^{\circ}$ C ( $122^{\circ}$ F).

#### 4. Materials and Manufacture

4.1 The asphalt shall be prepared from crude petroleum by suitable refining processes to conform to the applicable physical requirements for each type.

#### 5. Physical Requirements

5.1 The asphalt shall be homogeneous and free of water.

5.2 Each type shall conform to the appropriate requirements prescribed in Table 1.

#### 6. Sampling and Test Methods

6.1 Sample the material and determine the properties enumerated in this specification in accordance with the following methods:

<sup>&</sup>lt;sup>1</sup> This specification is under the jurisdiction of ASTM Committee D08 on Roofing and Waterproofing and is the direct responsibility of Subcommittee D08.03 on Surfacing and Bituminous Materials for Membrane Waterproofing and Built-up Roofing.

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<sup>&</sup>lt;sup>2</sup> 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.