



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

This standard is issued under the fixed designation D41/D41M; 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 U.S. Department of Defense.*

## 1. Scope

1.1 This specification covers asphaltic primer suitable for use with asphalt in roofing, dampproofing, and waterproofing below or above ground level, for application to concrete, masonry, metal, and asphalt surfaces.

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 *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/D5M Test Method for Penetration of Bituminous Materials

D88 Test Method for Saybolt Viscosity

D402/D402M Test Method for Distillation of Cutback Asphalt

D6511/D6511M Test Methods for Solvent Bearing Bituminous Compounds

## 3. Classification

3.1 Type I is characterized as an Asphalt Primer with a generally higher solvent-to-asphalt ratio.

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

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<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

3.2 Type II is characterized as an Asphalt Primer with a lesser solvent-to-asphalt ratio than Type I.

## 4. Physical Requirements

4.1 The primer shall conform to the following requirements:

Water, Vol %, max, Type I and Type II	0.5
Saybolt Furol viscosity at 25°C [77°F], Type I	25 to 125 s
Saybolt Furol viscosity at 25°C [77°F], Type II	120 to 500 s
Distillation, volume % of the primer:	
Up to 225°C [437°F], Type I	not less than 35
Up to 360°C [680°F], Type I	not more than 65
Up to 225°C [437°F], Type II	not less than 30
Up to 360°C [680°F], Type II	not more than 60

4.2 The residue obtained from the distillation up to 360°C [680°F] shall conform to the following requirements:

Penetration at 25°C [77°F], 100 g, 5 s	20 to 50
Matter soluble in trichloroethylene	not less than 99 %

## 5. Sampling

5.1 From each shipment or fraction thereof representing primer of the same kind, select a number of packages at random equivalent to the cube root of the total number of packages in the lot. If the cube root as calculated proves to be a fractional number, it shall be expressed as the next higher whole number. For convenience, the following table is given, showing the number of samples to be selected for shipments of various sizes:

Packages in Shipment	Packages Selected
2 to 8	2
9 to 27	3
28 to 64	4
65 to 125	5
126 to 216	6
217 to 343	7
344 to 512	8
513 to 729	9
730 to 1000	10
1001 to 1331	11

5.2 By means of a paddle, thoroughly stir the contents of each package selected so as to bring all portions thereof into uniform distribution. With an appropriate sampler, immediately draw not less than 450 ml [1 pt] of the primer from the center of each package, and transfer to a clean receptacle of suitable size, which in turn shall be kept tightly covered, prior



to and immediately after the samples are being introduced. After all the pint has been added, thoroughly agitate the contents of the container, whereupon immediately transfer 0.95 L [1 qt] of the mixture to a clean quart can provided with a tightly fitting screw cap, and immediately fasten the cap in place. This sample shall be considered as representative of the shipment and shall be transmitted to the laboratory for examination, bearing a suitable tag or other means of identification.

## **6. Test Methods**

6.1 Determine the properties enumerated in this specification in accordance with the following test methods of ASTM:

6.1.1 *Furol Viscosity*—Test Method **D88**.

6.1.2 *Distillation*—Test Method **D402/D402M**.

6.1.3 *Penetration*—Test Method **D5/D5M**.

6.1.4 *Matter Soluble in Trichloroethylene*—See Section 8 of Test Methods **D6511/D6511M**.

6.1.5 *Water*—See Section 10 of Test Methods **D6511/D6511M**.

## **7. Rejection and Resubmittal**

7.1 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.

## **8. Packaging and Package Marking**

8.1 All products shall be packaged and labeled in accordance with applicable regulations.

8.2 Each package shall indicate the applicable ASTM designation.

## **9. Keywords**

9.1 asphalt; dampproofing; primer; roofing; waterproofing

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