



Standard Specification for Asphalt Primer Used in Roofing, Dampproofing, and Waterproofing¹

This standard is issued under the fixed designation D 41; 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 (€) 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 NOTE—Editorially switched from English dominant to SI dominant.

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 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 5 Test Method for Penetration of Bituminous Materials²
- D 88 Test Method for Saybolt Viscosity³
- D 95 Test Method for Water in Petroleum Products and Bituminous Materials by Distillation⁴
- D 402 Test Method for Distillation of Cut-Back Asphaltic (Bituminous) Products²
- D 2042 Test Method for Solubility of Asphalt Materials in Trichloroethylene²

3. Physical Requirements

3.1 The primer shall conform to the following requirements:

| | |
|--|------------------|
| Water, Vol %, max | 0.5 |
| Saybolt Furol viscosity at 25°C (77°F) | 25 to 125 s |
| Distillation, volume % of the primer: | |
| Up to 225°C (437°F) | not less than 35 |
| Up to 360°C (680°F) | not more than 65 |

3.2 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 % |

4. Sampling

4.1 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 |

4.2 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.

5. Test Methods

5.1 Determine the properties enumerated in this specification in accordance with the following test methods of the American Society for Testing and Materials:

¹ This specification is under the jurisdiction of ASTM Committee D-8 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 D 41 – 17 T. Last previous edition D 41 – 85.

² *Annual Book of ASTM Standards*, Vol 04.03.

³ *Annual Book of ASTM Standards*, Vol 04.04.

⁴ *Annual Book of ASTM Standards*, Vol 05.01.

- 5.1.1 *Furol Viscosity*—Test Method D 88.
- 5.1.2 *Distillation*—Test Method D 402.
- 5.1.3 *Penetration*—Test Method D 5.
- 5.1.4 *Soluble in Trichloroethylene*—Test Method D 2042.
- 5.1.5 *Water*—Test Method D 95.

6. Rejection and Resubmittal

6.1 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.

7. Packaging and Package Marking

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

7.2 Each package shall indicate the applicable ASTM designation.

8. Keywords

8.1 asphalt; dampproofing; primer; roofing; waterproofing

The American Society for Testing and Materials takes no position respecting the validity of any patent rights asserted in connection with any item mentioned in this standard. Users of this standard are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, are entirely their own responsibility.

This standard is subject to revision at any time by the responsible technical committee and must be reviewed every five years and if not revised, either reapproved or withdrawn. Your comments are invited either for revision of this standard or for additional standards and should be addressed to ASTM Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee, which you may attend. If you feel that your comments have not received a fair hearing you should make your views known to the ASTM Committee on Standards, at the address shown below.

This standard is copyrighted by ASTM, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959, United States. Individual reprints (single or multiple copies) of this standard may be obtained by contacting ASTM at the above address or at 610-832-9585 (phone), 610-832-9555 (fax), or service@astm.org (e-mail); or through the ASTM website (www.astm.org).