



Designation: D3141/D3141M – 15

Standard Specification for Asphalt for Undersealing Portland-Cement Concrete Pavements¹

This standard is issued under the fixed designation D3141/D3141M; 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.

1. Scope

1.1 This specification covers asphalt suitable for undersealing portland cement concrete and overlaid concrete pavements by pumping hot asphalt under the slabs.

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.

2. Referenced Documents

2.1 *ASTM Standards*:²

- D5 Test Method for Penetration of Bituminous Materials
- D6 Test Method for Loss on Heating of Oil and Asphaltic Compounds
- D36 Test Method for Softening Point of Bitumen (Ring-and-Ball Apparatus)
- 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
- D312 Specification for Asphalt Used in Roofing

¹ This specification is under the jurisdiction of ASTM Committee D04 on Road and Paving Materials and is the direct responsibility of Subcommittee D04.40 on Asphalt Specifications.

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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.

D2042 Test Method for Solubility of Asphalt Materials in Trichloroethylene

D7553 Test Method for Solubility of Asphalt Materials in N-Propyl Bromide

3. Material

3.1 An asphalt of suitable consistency for pumping when heated to a temperature from 204 to 232°C [400 to 450°F] and for resistance to displacement in the pavement when cooled; for sealing the underside of the slabs and joints, to fill cavities; and to correct vertical alignment by raising the slab.

4. Properties

4.1 The asphalt shall be homogeneous and free of water and shall conform to the requirements in **Table 1**.

5. Methods of Sampling and Testing

5.1 The asphalt shall be sampled and the properties enumerated in this specification shall be determined in accordance with the following ASTM methods:

- 5.1.1 *Sampling*—Practice **D140**.
- 5.1.2 *Softening Point*—Test Method **D36**.
- 5.1.3 *Flash Point*—Test Method **D92**.
- 5.1.4 *Penetration*—Test Method **D5**.
- 5.1.5 *Ductility*—Test Method **D113**.
- 5.1.6 *Loss on Heating*—Test Method **D6**.
- 5.1.7 *Bitumen Soluble in Trichloroethylene*—Test Method **D2042**.

6. Keywords

6.1 asphalt cement; portland-cement concrete; undersealing