

Designation: D 6152 - 99

Standard Specification for SEBS-Modified Mopping Asphalt Used in Roofing¹

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1. Scope

- 1.1 This specification covers SEBS (styrene-ethylene-butylene-styrene)-modified asphalt intended for use in built-up roof construction, construction of some modified bitumen systems, construction of bituminous vapor retarder systems, and for adhering insulation boards used in various types of roof systems.
- 1.2 This standard is intended as a material specification. Issues regarding the suitability of specific roof constructions or application techniques are beyond its scope.
- 1.3 The specified tests and property values used to characterize SEBS-modified asphalt are intended to establish minimum properties. In place system design criteria or performance attributes are factors beyond the scope of this specification.
- 1.4 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.
- 1.5 This standard does not purport to address 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 36 Test Method for Softening Point of Bitumen (Ring-and-Ball Apparatus)³
- D 92 Test Method for Flash and Fire Points by Cleveland Open Cup⁴
- D 140 Practice for Sampling Bituminous Materials²
- D 312 Specification for Asphalt Used in Roofing³
- D 412 Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers—Tension⁵
- ¹ This specification is under the jurisdiction of ASTM Committee D-08 on Roofing, Waterproofing, and Bituminous Materials and is the direct responsibility of Subcommittee D08.03 on Surfacing and Bituminous Materials for Membrane Waterproofing and Builtup Roofing.

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- 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 Annual Book of ASTM Standards, Vol 09.01.

- D 1079 Terminology Relating to Roofing, Waterproofing, and Bituminous Materials³
- D 2042 Test Method for Solubility of Asphalt Materials in Trichloroethylene²
- D 3111 Test Method for Flexibility of Hot-Melt Adhesives by Mandrel Bend Test Method⁶

3. Terminology

- 3.1 *Definitions* For definitions of general terms used in this specification, refer to Terminology D 1079.
 - 3.2 Definitions of Terms Specific to This Standard:
- 3.2.1 *elastic recovery*, *n*—the degree to which a material returns to its normal dimensions after being distorted.
- 3.2.2 *low temperature flexibility*, *n*—the ability of a material to bend at a prescribed rate around a mandrel of a prescribed diameter at a prescribed low temperature without cracking or breaking.

4. Materials and Manufacture

- 4.1 The base asphalt shall be prepared from crude petroleum.
- 4.2 The SEBS-modified asphalt shall incorporate sufficient SEBS as the primary polymeric modifier to meet the requirements of this specification.

5. Physical Requirements

- 5.1 The SEBS modified asphalt shall be homogeneous and free of water.
- 5.2 The SEBS modified asphalt shall conform to the physical properties prescribed in Table 1.

6. Sampling

- 6.1 Sample the material as prescribed in Practice D 140.
- 6.2 If the material is shipped in hot filled cardboard or plastic kegs, obtain samples from the kegs in accordance with the following procedure:
- 6.2.1 Remove the container from the block of SEBS-modified asphalt, cutting away the liner if present.
- 6.2.2 Using a hatchet or a hot knife, cut two vertical wedges approximately 50 mm (2 in.) wide and 50 mm (2 in.) deep along the entire length of the material block. Cut the wedges into 100–mm (4–in.) lengths.

⁶ Annual Book of ASTM Standards, Vol 15.06.