



Designation: D 1970 – 00

Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection¹

This standard is issued under the fixed designation D 1970; 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 polymer modified bituminous sheet materials intended for use as underlayment on roof eaves, or valleys, or both, to prevent leakage of shingle, tile, or metal roofs from water back-up due to ice dams.

1.2 These underlayment sheets have a sticky adhesive layer which is exposed by removal of a protective sheet. The top surface is suitable to work on during the application of the exposed roofing.

1.3 The values stated in SI units are to be regarded as standard.

1.4 The following safety hazards caveat pertains to the test methods portion, Section 7, of this standard. *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 228 Test Methods for Asphalt Roll Roofing, Cap Sheets, and Shingles²

D 903 Test Method for Peel or Stripping Strength of Adhesive Bonds³

D 1079 Terminology Relating to Roofing, Waterproofing, and Bituminous Materials²

D 1204 Test Method for Linear Dimensional Changes of Nonrigid Thermoplastic Sheeting or Film at Elevated Temperature⁴

D 2523 Practice for Testing Load-Strain Properties of Roofing Membranes²

D 4073 Test Method for Tensile-Tear Strength of Bituminous Roofing Membranes²

D 5147 Test Methods for Sampling and Testing Modified

Bituminous Sheet Material²

E 96 Test Methods for Water Vapor Transmission of Materials⁵

3. Terminology

3.1 *Definitions*—For definitions of terms used in this specification, refer to Terminology D 1079.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *lot*—for the purpose of sampling, a lot shall consist of all material manufactured in one production run (not to exceed 24 h) using the same source of raw materials.

4. Workmanship, Finish, and Appearance

4.1 The underlayment sheet shall be supplied in roll form.

4.2 The underlayment sheet shall be substantially uniform in thickness and appearance. It shall be free of visible defects such as holes, ragged or untrue edges, breaks, cracks, tears, protuberances, and indentations, except for those perforations or protuberances which are intentional.

4.3 The surface of the underlayment sheet shall be designed to provide traction and slip resistance to the applicator.

NOTE 1—The intent of 4.3 is to recognize that surface slipperiness is important when working on a roof and, while no test method is specified in this standard, several methods for assessing the relative slipperiness of surfaces are available. It is the further intent of this paragraph to ensure that, whatever method is used, the friction coefficient or resistance to slipping of the surface of these products should be at least as great as asphalt-saturated felt shingle underlayment tested under the same conditions of temperature and wetness as agreed between purchaser and seller.

4.4 Sheet sections shall be suitable for joining by the manufacturer's recommended procedure. The entire lower surface of the underlayment sheet shall be capable of being fully adhered to the roof deck.

5. Physical Requirements

5.1 The underlayment sheet shall conform to the physical requirements prescribed in Table 1.

5.2 The underlayment sheet shall not crack nor be so sticky as to cause tearing or other damage upon being unrolled at material temperatures between 4.4 and 60°C (40 and 140°F).

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 D08.02 on Prepared Roofings, Shingles, and Siding Materials.

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² Annual Book of ASTM Standards, Vol 04.04.

³ Annual Book of ASTM Standards, Vol 15.06.

⁴ Annual Book of ASTM Standards, Vol 08.01.

⁵ Annual Book of ASTM Standards, Vol 04.06.