



Designation: D 4811 – 97

Standard Specification for Nonvulcanized Rubber Sheet Used as Roof Flashing¹

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1. Scope

1.1 This specification covers nonvulcanized rubber sheet made of EPDM (ethylene-propylene-diene terpolymer) or CR (polychloroprene) intended for use as watertight roof flashing exposed to the weather.

1.2 The tests and property limits used to characterize these flashing materials are specific for each classification and are minimum values to make the product fit for its intended purpose.

1.3 SI units shall be used in referee decisions.

1.4 In-place roof system design criteria, such as fire resistance, field seaming strength, material compatibility, and uplift resistance, among others, are beyond the scope of this specification.

1.5 The following precautionary caveat pertains to the test methods portion only, Section 8, of this specification: *This standard may involve hazardous materials, operations, and equipment. This standard does not purport to address the safety concerns 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 412 Test Methods for Rubber Properties in Tension²
- D 471 Test Methods for Rubber Property—Effect of Liquids²
- D 518 Test Method for Rubber Deterioration—Surface Cracking²
- D 573 Test Methods for Rubber—Deterioration in Air Oven²
- D 624 Test Methods for Rubber Property—Tear Resistance²
- D 1079 Terminology Relating to Roofing, Waterproofing, and Bituminous Materials³
- D 1149 Test Method for Rubber Deterioration—Surface Ozone Cracking in a Chamber²

¹ This specification is under the jurisdiction of ASTM Committee D08 on Roofing, Waterproofing, and Bituminous Materials and is the direct responsibility of Subcommittee D08.18 on Nonbituminous Organic Roof Coverings.

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² Annual Book of ASTM Standards, Vol 09.01.

³ Annual Book of ASTM Standards, Vol 04.04.

D 1204 Test Method for Linear Dimensional Changes on a Nonrigid Thermoplastic Sheeting or Film at Elevated Temperatures⁴

D 1418 Practice for Rubber and Rubber Latices—Nomenclature²

D 2137 Test Methods for Rubber Property—Brittleness Point of Flexible Polymers and Coated Fabrics²

D 3182 Practice for Rubber—Materials, Equipment, and Procedures for Mixing Standard Compounds and Preparing Standard Vulcanized Sheets²

G 26 Practice for Operating Light-Exposure Apparatus (Xenon-Arc Type) With and Without Water for Exposure of Nonmetallic Materials⁵

G 53 Practice for Operating Light and Water Exposure (Fluorescent UV/Condensation Type) for Exposure of Nonmetallic Materials⁵

3. Classification

3.1 The following types are used to identify the principal polymer components of the flashing material (see Note 1):

3.1.1 *Type I*—Ethylene-Propylene-Diene Terpolymer (EPDM).

3.1.2 *Type II*—Chloroprene Polymer (CR).

NOTE 1—For definitions of polymer types, see Practice D 1418. For definitions of terms related to roofing, see Terminology D 1079.

4. Materials and Manufacture

4.1 The flashing material shall be formulated from the appropriate polymer type and other compounding ingredients. The principal polymer in the flashing material shall be one of those listed in 3.1 in accordance with proportions listed in 3.2 and greater than 95% of the total polymer.

4.2 The flashing material shall be capable of being bonded to itself, to the roofing membrane, and to substrate for making watertight field splices and repairs. The manufacturer or fabricator shall recommend suitable bonding methods and materials.

5. Physical Requirements

5.1 Class V flashing material shall conform to the physical property requirements prescribed in Table 1 and Table 2. Class

⁴ Annual Book of ASTM Standards, Vol 08.01.

⁵ Annual Book of ASTM Standards, Vol 14.02.