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Standard Specification for Vulcanized Rubber Sheets Used in Waterproofing Systems[1]

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1. Scope

1.1 This specification covers unreinforced vulcanized rubber sheets made from ethylene propylene diene terpolymer (EPDM) or butyl (IIR), intended for use in preventing water under hydrostatic pressure from entering a structure.

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

2. Referenced Documents

2.1 *ASTM Standards:* [2]

D 412 Test Methods for Vulcanized Rubber and Thermoplastic Elastomers—Tension

D 471 Test Method for Rubber Property—Effect of Liquids

D 573 Test Method for Rubber—Deterioration in an Air Oven

D 624 Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers

D 746 Test Method for Brittleness Temperature of Plastics and Elastomers by Impact

D 816 Test Methods for Rubber Cements

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

D 2240 Test Method for Rubber Property—Durometer Hardness

D 3083 Specification for Flexible Poly(Vinyl Chloride) Plastic Sheeting for Pond, Canal, and Reservoir Lining[3]

E 96/E 96M Test Methods for Water Vapor Transmission of Materials

E 154 Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover

3. Classification

3.1 Types used to identify the principal polymer component of the sheet include:

Type I: Ethylene Propylene Diene Terpolymer (EPDM); and,

Type II: Butyl (IIR)

3.2 The mass percentage of the principal polymer in relation to the total polymer shall be greater than 95 %.

4. Materials and Manufacture

4.1 The sheet shall be formulated from the appropriate polymers and other compounding ingredients. The principle polymer used in the sheet shall be one of those listed in 3.1 in accordance with the percentage listed in 3.2.

4.2 The sheet shall be capable of being bonded to itself for making field splices and repairs, and the manufacturer shall recommend bonding methods and materials.

5. Physical Requirements

5.1 The sheet shall conform to the physical requirements prescribed in Table 1. Other requirements shall be agreed upon between the purchaser and the supplier.

6. Dimensions and Permissible Variations

6.1 The width and length of the sheet shall be agreed upon between the purchaser and the supplier. The width and length tolerance shall be +3, 0 %.

6.2 Sheet thickness greater than the minimum shall be agreed upon between the purchaser and the supplier. The thickness tolerance shall be +15, –10 % of the specified thickness, but in no case shall the thickness be less than the minimum listed in Table 1.

7. Workmanship, Finish, and Appearance

7.1 The sheet, including factory seams if present, shall be watertight and visually free of pinholes, particles of foreign matter, undispersed raw material, or other manufacturing defects that might affect serviceability. If irregularities in the

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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.

[3] Withdrawn.