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Standard Specification for Asphalt Roll Roofing (Glass Felt) Surfaced With Mineral Granules[1]

This standard is issued under the fixed designation D3909/D3909M; 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.

This standard has been approved for use by agencies of the Department of Defense.
This specification replaces Federal Specification SS-R-630, Class 3.

ε1 NOTE—Units information was editorially corrected in June 2012.

1. Scope

1.1 This specification covers asphalt-impregnated and coated glass felt roll roofing surfaced on the weather side with mineral granules, for use as a cap sheet in the construction of built-up roofs.

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]

D228 Test Methods for Sampling, Testing, and Analysis of Asphalt Roll Roofing, Cap Sheets, and Shingles Used in Roofing and Waterproofing

D1079 Terminology Relating to Roofing and Waterproofing

3. Terminology

3.1 *Definitions*—For definitions of terms used in this specification, refer to Terminology D1079.

4. Materials and Manufacture

4.1 The glass felt shall be a thin, porous sheet composed predominately of fine glass fibers uniformly deposited in a nonwoven pattern. The felt may be reinforced with random, or parallel oriented glass yarns, or both, which may be gathered or twisted, bonded or unbonded. The felt shall contain a water-insoluble agent.

4.2 In the process of manufacture, the glass mat shall be uniformly impregnated and coated on both sides with an asphaltic material, permitted to be compounded with a mineral stabilizer.

4.3 The weather side shall be uniformly surfaced with mineral granules firmly embedded in the asphaltic coating, except for any selvage.

4.4 The reverse side shall be covered with a material to prevent sticking in the roll.

5. Physical Properties

5.1 The material shall conform to the dimensions and masses prescribed in Table 1 and areas prescribed in Table 2.

5.2 The finished product shall not crack nor be so sticky as to cause tearing or other damage upon being unrolled at temperatures between 10 and 60°C [50 and 140°F].

5.3 *Pliability at 25°C [77°F]*—At least eight strips out of ten from the granule-surfaced portion of the sheet shall not crack when tested in accordance with Section 10 of Test Methods D228.

5.4 *Mass Loss and Behavior on Heating*—There shall be no more than 1.5 % volatile loss, and the granular surfacing shall not slide more than 2 mm [1⁄16 in.] when tested in accordance with Section 11 of Test Methods D228.

6. Workmanship, Finish, and Appearance

6.1 The glass felt shall be thoroughly and uniformly impregnated with asphalt and shall show no uncoated fibers. The fiber pattern may be discernible on the back side.

6.2 The surface of the weather side shall be uniform in finish and texture. The mineral granules shall be uniformly distributed in a smooth layer over the entire surface, except for any selvage, and shall be firmly embedded in the asphalt coating.

[1] This specification is under the jurisdiction of ASTM Committee D08 on Roofing and Waterproofing and is the direct responsibility of Subcommittee D08.04 on Felts, Fabrics and Bituminous Sheet Materials.

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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.