



Designation: D3909 – 97b (Reapproved 2004)^{ε1}

Standard Specification for Asphalt Roll Roofing (Glass Felt) Surfaced With Mineral Granules¹

This standard is issued under the fixed designation D3909; 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—Editorially switched from English dominant to SI dominant in November 2004.

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 SI units are to be regarded as the standard. The values in parentheses are for information only.

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.

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 and Fabrics.

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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.