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AMERICAN SOCIETY FOR TESTING AND MATERIALS
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Standard Specification for Asphalt Roll Roofing (Organic Felt) Surfaced with Mineral Granules¹

This standard is issued under the fixed designation D 249; 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.

1. Scope

1.1 This specification covers asphalt roofing in sheet form, in widths as agreed upon by the purchaser and the seller, composed of asphalt-saturated organic felt coated on both sides with asphalt and surfaced on the weather side with mineral granules, except for any selvage.

1.2 *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 146 Test Methods for Sampling and Testing Bitumen-Saturated Felts and Woven Fabrics for Roofing and Waterproofing²
- D 228 Test Methods for Asphalt Roll Roofing, Cap Sheets, and Shingles²
- D 1079 Terminology Relating to Roofing, Waterproofing, and Bituminous Materials²
- D 3019 Specification for Lap Cement Used with Asphalt Roll Roofing²

3. Terminology

3.1 Refer to Terminology D 1079 for definitions of terms used in this specification.

4. Classification

4.1 *Type I*—Minimum net mass of granule-surfaced portion 74.0 lb/100 ft² (3610 g/m²).

4.2 *Type II*—Minimum net mass of granule-surfaced portion 71.5 lb/100 ft² (3490 g/m²).

5. Materials and Manufacture

5.1 In the process of manufacture, a single thickness of dry felt shall be impregnated with a hot asphaltic saturant, then

coated on both sides with a hot asphaltic coating, and finally surfaced on the weather side with mineral granules, except for any selvage. The reverse side shall be covered with a suitable material to prevent sticking in the roll.

5.2 The granule surfacing shall be omitted on any selvage, and the asphalt coating may be omitted on the weather side of the selvage. If the selvage is coated, it shall be covered with a material to prevent sticking in the roll that will not interfere with the bonding of lap cement.

5.3 The felt shall be produced primarily from organic fibers. The surface of the felt shall be uniform and relatively smooth. Upon splitting or tearing on the bias, the felt shall appear reasonably free of lumps of underbeaten stock and particles of foreign substances.

5.4 The asphaltic coating may be compounded with a fine mineral stabilizer substantially insoluble in water.

6. Physical Requirements

6.1 The finished material shall neither crack at ambient temperatures above 50°F (10°C) nor be so sticky at temperatures below 140°F (60°C) as to cause tearing or other material damage upon being unrolled.

6.2 *Pliability*—At least eight strips out of ten from the granule-surfaced portion of the sheet shall not crack when tested in accordance with Test Methods D 228, Section 17.

6.3 *Loss and Behavior on Heating*—There shall be no more than 1.5 % volatile loss, and the granular surfacing shall not slide more than 1/16 in. (2 mm) when tested in accordance with Test Methods D 228, Section 18.

6.4 Material with a 4-in. (102 mm) wide selvage shall meet the lap strength requirements with Type II cement specified in Specification D 3019.

7. Dimensions, Mass, and Permissible Variations

7.1 *Width*—The material shall be put up in rolls and shall be 36 in. (914 mm) \pm 0.7 % wide, unless another width is agreed upon by the purchaser and the seller.

7.2 *Selvage*—The material may be offered without a selvage, with a 2 \pm 1/4 in. (51 \pm 6 mm) selvage, or with a 4 \pm 1/2 in. (102 \pm 12 mm) selvage.

7.3 *Area*—The standard 36-in. (914-mm) wide roll shall contain 108 ft² (10.0 m²) \pm 1 % of sheet if there is no selvage or if there is a 2-in. (51-mm) selvage. The standard width roll shall contain 114 ft² (10.6 m²) \pm 1 % of sheet if there is a 4-in.

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 Roofing, Shingles, and Siding Materials.

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² *Annual Book of ASTM Standards*, Vol 04.04.