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Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules¹

This standard is issued under the fixed designation D3018/D3018M; 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.

1. Scope

1.1 This specification covers granule-surfaced asphalt roofing shingles that meet the requirements for Class A fire test, behavior on heating, and wind testing.

1.2 Shingles meeting this specification are intended to be applied with a headlap of not less than 51 mm [2 in.].

1.3 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~~ nonconformance with the standard.

1.4 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 ASTM Standards:²

- [D228/D228M 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](#)
- [D3161/D3161M Test Method for Wind Resistance of Steep Slope Roofing Products \(Fan-Induced Method\)](#)
- [E108 Test Methods for Fire Tests of Roof Coverings](#)

3. Terminology

3.1 Definitions:

3.1.1 *glass mat*—for testing purposes in accordance with Test Methods [D228/D228M](#), glass mat shall be considered as felt.

3.2 For definitions of terms used in this specification, see Terminology [D1079](#).

4. Classification

4.1 Asphalt shingles covered by this specification are of two types:

¹ This specification is under the jurisdiction of ASTM Committee [D08](#) on Roofing and Waterproofing and is the direct responsibility of Subcommittee [D08.02](#) on Steep Roofing Products and Assemblies.

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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.



4.1.1 *Type I*—Self-sealing.

4.1.2 *Type II*—Non-self-sealing.

5. Materials and Manufacture

5.1 The shingles covered by this specification shall consist of organic felt or glass mat(s) saturated or impregnated and coated on both sides with a hot asphaltic material. All surfaces intended to be exposed to the weather, including any cutouts or other separations, when the product is applied in accordance with the ~~manufacturers' or sellers'~~ manufacturer's or seller's instructions, shall be surfaced with mineral granules embedded in the asphalt coating.

5.2 ~~The~~ It is permitted for the hot asphaltic material used to saturate or impregnate and coat the organic felt or glass mat(s) ~~may~~ to be compounded with a mineral stabilizer.

5.3 The reverse side of the shingles shall be covered with a suitable material to prevent the shingles from sticking together in the package.

5.4 Type I shingles shall have a factory-applied adhesive that will seal the shingles together after application.

6. Physical Requirements

6.1 Shingles shall not stick together in the package so as to cause damage upon being unpacked at ambient temperatures above $+10^{\circ}\text{C}$ [50°F]; 10°C [50°F].

6.2 *Loss and Behavior on Heating*—There shall be not more than 1.5 % average loss of volatile matter, and the granular surfacing shall not slide more than 2 mm [$1/16$ in.].

6.3 *Fire Test Classification*—Shingles shall pass all of the Class A fire exposure tests.

6.4 *Wind Resistance*—Shingles shall be classified in accordance with the wind-resistance test (see 9.1.3).

7. Dimensions and Permissible Variations

7.1 The form and size of the shingles shall be as agreed upon by the purchaser and seller.

7.2 The shingles shall not vary in length more than ~~± 3.2 mm~~ ± 3.2 mm [$1/8$ in.] from nominal dimensions established for each size, except that the length of shingles without cutouts shall not vary more than ± 6.4 mm [$1/4$ in.]. The width of the shingles shall not vary more than ± 6.4 mm [$1/4$ in.].

8. Workmanship, Finish, and Appearance

8.1 The organic felt or glass mat(s) shall be uniformly saturated or impregnated with asphalt and shall show no untreated spots at any point upon cutting 50-mm [2-in.] wide strips at random across the entire width of the shingle and splitting them open for their full length.

8.2 The weather surface shall be uniform in finish and is permitted to be embossed to simulate a grain texture. The mineral granules shall cover all surfaces intended to be exposed to the weather when the product is applied in accordance with the ~~manufacturers' or sellers'~~ manufacturer's or seller's instructions, and shall be firmly embedded in the asphalt coating. The granules shall not have ruptured the fibers of the felt or mat.

8.3 The finished shingles shall be free of visible defects such as holes, edges not cleanly cut, rents, cracks, indentations, or lumps of coating.