



Designation: D 3018 – 03

Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules¹

This standard is issued under the fixed designation D 3018; 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 granule-surfaced asphalt roofing shingles that meet the conditions for Class A fire test, behavior on heating, and wind testing of Type I shingles.

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

2. Referenced Documents

2.1 ASTM Standards:

D 228 Test Methods for Sampling, Testing, and Analysis of Asphalt Roll Roofing, Cap Sheets, and Shingles Used in Roofing and Waterproofing²

D 1079 Terminology Relating to Roofing, Waterproofing, and Bituminous Materials²

D 3161 Test Method for Wind Resistance of Asphalt Shingles (Fan-Induced Method)²

E 108 Test Methods for Fire Tests of Roof Coverings³

3. Terminology

3.1 Definition:

3.1.1 *glass mat*—for testing purposes in accordance with Test Methods D 228, glass mat shall be considered as felt.

3.2 For definitions of terms used in this specification, see Terminology D 1079.

4. Classification

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

4.1.1 *Type I*—Self-sealing.

4.1.2 *Type II*—Non-self-sealing.

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 Prepared Roofings, Shingles, and Siding Materials.

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

³ *Annual Book of ASTM Standards*, Vol 04.07.

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 and completely surfaced on the weather side with mineral granules embedded in the coating.

5.2 The hot asphaltic material used to saturate or impregnate and coat the organic felt or glass mat(s) may 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° 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 ($\frac{1}{16}$ in.).

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

6.4 *Wind Resistance*—Type I shingles shall pass 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 ($\frac{1}{8}$ in.) from nominal dimensions established for each size, except that the length of shingles without cutouts shall not vary more than ± 6.4 mm ($\frac{1}{4}$ in.). The width of the shingles shall not vary more than ± 6.4 mm ($\frac{1}{4}$ 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