



Designation: D 228 – 02

Standard Test Methods for Sampling, Testing, and Analysis of Asphalt Roll Roofing, Cap Sheets, and Shingles Used in Roofing and Waterproofing¹

This standard is issued under the fixed designation D 228; 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 reappraisal. A superscript epsilon (ε) indicates an editorial change since the last revision or reappraisal.

1. Scope

1.1 These test methods include procedures for sampling, examination, physical testing, and analyses of asphalt-containing materials used in roofing and waterproofing. These materials include but are not limited to roll roofing, cap sheets, and shingles. Any of these materials are allowed to be partially or fully coated, surfaced, or laminated, or combination thereof.

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

1.3 The test methods and procedures in this standard appear in the following order:

Section	Content
5	Types of Roofing
6	Sampling
7	Mass and Area Determination
8	Selection of Representative Specimens
9	Moisture
10	Pliability
11	Weight Loss and Behavior on Heating
12	Tear Strength
13	Preparation and Selection of Small Test Specimens for Analyses
14	Analysis of Glass Felt Products
15	Analysis of Roofing Products with Organic or Asbestos Felts
16	Ash of Desaturated Felt
17	Calculation
18	Adjusting Back Coating Fine Mineral Matter and Back Surfacing
19	Report
19	Precision and Bias

1.4 *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 95 Test Method for Water in Petroleum Products and

¹ These test methods are under the jurisdiction of ASTM Committee D08 on Roofing, Waterproofing, and Bituminous Materials and are the direct responsibility of Subcommittee D08.02 on Prepared Roofing, Shingles, and Siding Materials.

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Bituminous Materials by Distillation²

D 224 Specification for Smooth-Surfaced Asphalt Roll Roofing (Organic Felt)³

D 225 Specification for Asphalt Shingles (Organic Felt) Surfaced with Mineral Granules³

D 249 Specification for Asphalt Roll Roofing (Organic Felt) Surfaced with Mineral Granules³

D 371 Specification for Asphalt Roll Roofing (Organic Felt) Surfaced with Mineral Granules; Wide Selvage³

D 1079 Terminology Relating to Roofing, Waterproofing, and Bituminous Materials³

D 1922 Test Method for Propagation of Tear Resistance of Plastic Film and Thin Sheeting by Pendulum Method⁴

D 2178 Specification for Asphalt Glass Felt Used in Roofing and Waterproofing³

D 2626 Specification for Asphalt-Saturated and Coated Organic Felt Base Sheet Used in Roofing³

D 3462 Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules³

D 3909 Specification for Asphalt Roll Roofing (Glass Felt) Surfaced with Mineral Granules³

D 4601 Specification for Asphalt-Coated Glass Fiber Base Sheet Used in Roofing³

D 4897 Specification for Asphalt-Coated Glass-Fiber Venting Base Sheet Used in Roofing³

D 6380 Specification for Asphalt Roll Roofing (Organic Felt)³

3. Terminology

3.1 Definitions:

3.1.1 For definitions of terms used in these test methods, see Terminology D 1079.

3.1.2 As referenced in 13.1, “Materials of Uniform Composition” designates products that are manufactured to be the same thickness, ply count, and mass per unit area in all areas of the material. This would include traditional “3 Tab” shingles and other shingles that have areas of material removed for appearance purposes but the rest of the shingle is of uniform

² *Annual Book of ASTM Standards*, Vol 05.01.

³ *Annual Book of ASTM Standards*, Vol 04.04.

⁴ *Annual Book of ASTM Standards*, Vol 08.01.