



Designation: D 4897 – 01

Standard Specification for Asphalt-Coated Glass-Fiber Venting Base Sheet Used in Roofing¹

This standard is issued under the fixed designation D 4897; 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-impregnated and coated glass-fiber base sheet with mineral surfacing on the top side and coarse mineral granules on the bottom side for use as the first ply of a roofing membrane. These base sheets provide for the lateral release of pressure in roofing systems because they are not solidly attached and the coarse granular surface provides an open, porous channel in the horizontal plane beneath the membrane. The base sheets shall be permitted to be with or without perforations or embossings.

1.2 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 146 Test Methods for Sampling and Testing Bitumen-Saturated Felts and Woven Fabrics for Roofing and Waterproofing²

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

3. Terminology

3.1 *Definitions*—For definitions of terms used in this specification, refer to Terminology **D 1079**.

4. Classification

4.1 *Type II*—Heavy-duty asphalt-coated glass-fiber venting base sheet.

¹ This specification is under the jurisdiction of ASTM Committee D08 on Roofing, Waterproofing, and Bituminous Materials and is the direct responsibility of Subcommittee D08.04 on Felts and Fabrics for Bituminous Roofing and Waterproofing.

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

TABLE 1 Physical Requirements

	Type II
Breaking strength, min, at $25 \pm 1^\circ\text{C}$ ($77 \pm 2^\circ\text{F}$) kN/m (lbf/in.)—longitudinal and transverse	7.7 (44)
Diameter of spot-mopping holes, (when present) max, mm (in.)	25 (1.0)
Spacing of holes, center-to-center (when present) min, mm (in.) max, mm (in.)	51 (2.0) 152 (6.0)

5. Materials and Manufacture

5.1 The mat shall be a thin porous sheet of uniformly distributed glass fibers, with or without the addition of reinforcing strands, or glass yarns, which are bonded with a water-resistant resinous binder.

5.2 In the process of manufacture, the glass mat is impregnated and coated on both sides with a hot asphaltic coating with or without a mineral stabilizer and surfaced on the bottom side with coarse mineral granules embedded in an asphaltic coating. The top side shall be surfaced with fine mineral surfacing.

5.3 The product shall be permitted to be embossed or unembossed on the bottom side. The product shall be permitted to contain holes designated for attachment with mopping asphalt.

6. Physical Requirements, Dimensions, and Masses

6.1 The material at the point of manufacture shall conform to the physical requirements in **Table 1** and the dimensions and masses in **Table 2**.

6.2 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).

6.3 *Pliability at $25 \pm 1^\circ\text{C}$ ($77 \pm 2^\circ\text{F}$)*—At least eight out of ten strips shall not crack when tested in accordance with Test Methods **D 228** except, for convenience, that the strips shall be conditioned in ambient conditions at $25 \pm 1^\circ\text{C}$ ($77 \pm 2^\circ\text{F}$) for at least 30 min before testing over a 19-mm ($3/4$ -in.) radius.

6.4 *Loss and Behavior on Heating*—There shall be no flowing, sagging, or blistering of the asphalt coating when tested in accordance with Test Methods **D 228**.