



Designation: D 3617 – 02

## Standard Practice for Sampling and Analysis of New Built-Up Roof Membranes<sup>1</sup>

This standard is issued under the fixed designation D 3617; 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 approval. A superscript epsilon ( $\epsilon$ ) 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 practice is a guide for removing specimens from new built-up bituminous roof membranes before the application of flood coating and top surfacing for determining the approximate quantities of the components and the possible presence of moisture, or dry spots between plies, in the field. Components may consist of:

- 1.1.1 Insulation, when part of the roof membrane system,
- 1.1.2 Plies of roofing felt,
- 1.1.3 Interply layers of bituminous material, and
- 1.1.4 Top coating, if present, before any surfacing aggregate has been applied.

1.2 The values stated in SI (metric) units are to be regarded as the standard.

1.3 This standard is applicable to 910-mm (36-in.) wide felt rolls and does not apply to metric-sized (that is, 1000-mm [39 $\frac{3}{8}$ -in.] wide) felt rolls.

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 226 Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing<sup>2</sup>
- D 227 Specification for Coal-Tar Saturated Organic Felt Used in Roofing and Waterproofing<sup>2</sup>
- D 250 Specification for Asphalt-Saturated Asbestos Felt Used in Roofing and Waterproofing<sup>3</sup>
- D 2178 Specification for Asphalt Glass Felt Used in Roofing and Waterproofing<sup>2</sup>
- D 2626 Specification for Asphalt-Saturated and Coated Organic Felt Base Sheet Used in Roofing<sup>2</sup>

D 3158 Specification for Asphalt-Saturated and Coated Organic Felt Used in Roofing<sup>4</sup>

D 3378 Specification for Asphalt-Saturated and Coated Asbestos Felt Base Sheet Used in Roofing<sup>5</sup>

### 3. Sampling

3.1 Unless otherwise specified, take at least one specimen for each separate roof, plus one for each 929 m<sup>2</sup> (10 000 ft<sup>2</sup>); take specimens at random.

3.2 Take additional specimens in which deficiencies are indicated in the membrane to determine the extent of the deficient area.

### 4. Test Specimen

4.1 Sweep the surface of the membrane clean where each test specimen will be taken.

4.2 For determining approximate quantities of components, cut a 300- by 300-mm (12- by 12-in.) specimen from the membrane using a template (Fig. 1).

4.2.1 If the membrane is adhered to the insulation, remove the membrane with the adhering insulation.

4.2.2 If the membrane is adhered directly to the roof deck, estimate the quantity of bitumen remaining on the deck after the specimen is removed.

4.3 For the purpose of determining the felt spacing, cut a 100- by 1000-mm (4- by 40-in.) rectangular specimen from the membrane, using a template (Fig. 1) placed at right angles to the long dimension of the felts.

4.4 Identify each specimen by location and record the presence of insulation or the estimated quantity of bitumen remaining on the deck.

4.5 If practicable, return the cut membrane specimen to its original location in the roof. Make adequate repairs to the roofing system, using at least the same number of felt plies as the original roof membrane after testing.

### 5. Procedure

5.1 Remove insulation fully from the 300- by 300-mm (12- by 12-in.) specimen, if present, being careful to remove as little bituminous material as possible or leave the insulation in place

<sup>1</sup> This practice is under the jurisdiction of ASTM Committee D08 on Roofing, Waterproofing, and Bituminous Materials and is the direct responsibility of Subcommittee D08.20 on Roofing Membrane Systems.

Current edition approved Jan. 10, 2002. Published March 2002. Originally published as D 3617-77. Last previous edition D 3617-83(1994) <sup>$\epsilon$ 1</sup>.

<sup>2</sup> Annual Book of ASTM Standards, Vol 04.04.

<sup>3</sup> Discontinued—See 1991 Annual Book of ASTM Standards, Vol 04.04.

<sup>4</sup> Discontinued—See 1983 Annual Book of ASTM Standards, Vol 04.04.

<sup>5</sup> Discontinued—See 1985 Annual Book of ASTM Standards, Vol 04.04.