



Designation: D7379 – 08

Standard Test Methods for Strength of Modified Bitumen Sheet Material Laps Using Cold Process Adhesive¹

This standard is issued under the fixed designation D7379; 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 These test methods cover the procedure for sampling and testing the strength of laps formed with adhesive used with polymer-modified bituminous sheet materials.

1.2 The values stated in SI units are to be regarded as standard. The values given in parentheses are mathematical conversions to inch-pound units that are provided for information only and are not considered standard.

1.3 *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:*²

D140 Practice for Sampling Bituminous Materials

D146 Test Methods for Sampling and Testing Bitumen-Saturated Felts and Woven Fabrics for Roofing and Waterproofing

D5147 Test Methods for Sampling and Testing Modified Bituminous Sheet Material

3. Significance and Use

3.1 These tests are useful in sampling and testing combinations of modified bitumen sheet materials used with cold applied adhesives.

4. Sampling

4.1 From each shipment or fraction thereof, select at random a number of modified bitumen rolls and containers of adhesive in accordance with the following. Determine the number of adhesive containers to be sampled in accordance with Practice

D140. Determine the number of rolls to be selected in accordance with Section 3, Sampling, of Test Methods **D146**.

5. Conditioning

5.1 Condition test materials for a minimum of 4 h at $23 \pm 2^\circ\text{C}$ ($73.4 \pm 3.6^\circ\text{F}$) and $50 \pm 5\%$ relative humidity before preparing specimens for testing.

6. Lap T-Peel Strength

6.1 This test method covers the determination of the T-peel strength of polymer-modified bituminous sheet material and cold applied adhesive combinations.

6.1.1 *Modified Bitumen Samples for Testing*—Samples for testing shall consist of two 140 by 152 mm (5.5 by 6 in.) test panels of modified bitumen, bonded with the adhesive to be tested, and cut into 25 mm (1 in.) specimens as shown in **Fig. 1**. Cut the modified bitumen sheet materials and mate the sides to be bonded facing each other.

6.1.2 Sides to be bonded shall be prepared in the same fashion as a field seam is constructed with the bottom side of a top panel bonded to the top side (selvage) of the bottom panel using the adhesive to be tested.

6.2 Stir the adhesive to be tested until it is uniform. Spread 5.0 ± 0.3 g of the adhesive evenly over the selvage portion of a bottom panel. Place the top panel over the adhesive-coated area of the bottom panel (as shown in **Fig. 1**) in the same manner, as a field lap would be made.

6.3 Roll the freshly prepared panel combination three times with a back-and-forth motion, taking care not to move the panels during the rolling process. No downward pressure shall be exerted on the roller by the operator. The roller shall be placed in direct contact with the 3-in. wide cemented lap portion. The roller shall be 127 mm (5 in.) $\pm 5\%$ wide, 127 mm (5 in.) $\pm 5\%$ in diameter, and shall weigh 11.8 kg (26 lb) $\pm 5\%$.

6.4 *Conditioning*—Heat condition completed modified bitumen panels prior to peel testing in a ventilated, forced air convection oven at $70 \pm 3^\circ\text{C}$ ($158 \pm 5^\circ\text{F}$) for 7 days ± 2 h. Panels are to be placed in the oven within 24 h of preparation.

6.4.1 After conditioning, allow panels to come to constant temperature at $23 \pm 2^\circ\text{C}$ ($73.4 \pm 3.6^\circ\text{F}$) and $50 \pm 5\%$ humidity for 24 ± 1 h prior to testing.

¹ These test methods are under the jurisdiction of ASTM Committee **D08** on Roofing and Waterproofing and is the direct responsibility of Subcommittee **D08.04** on Felts and Fabrics.

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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.

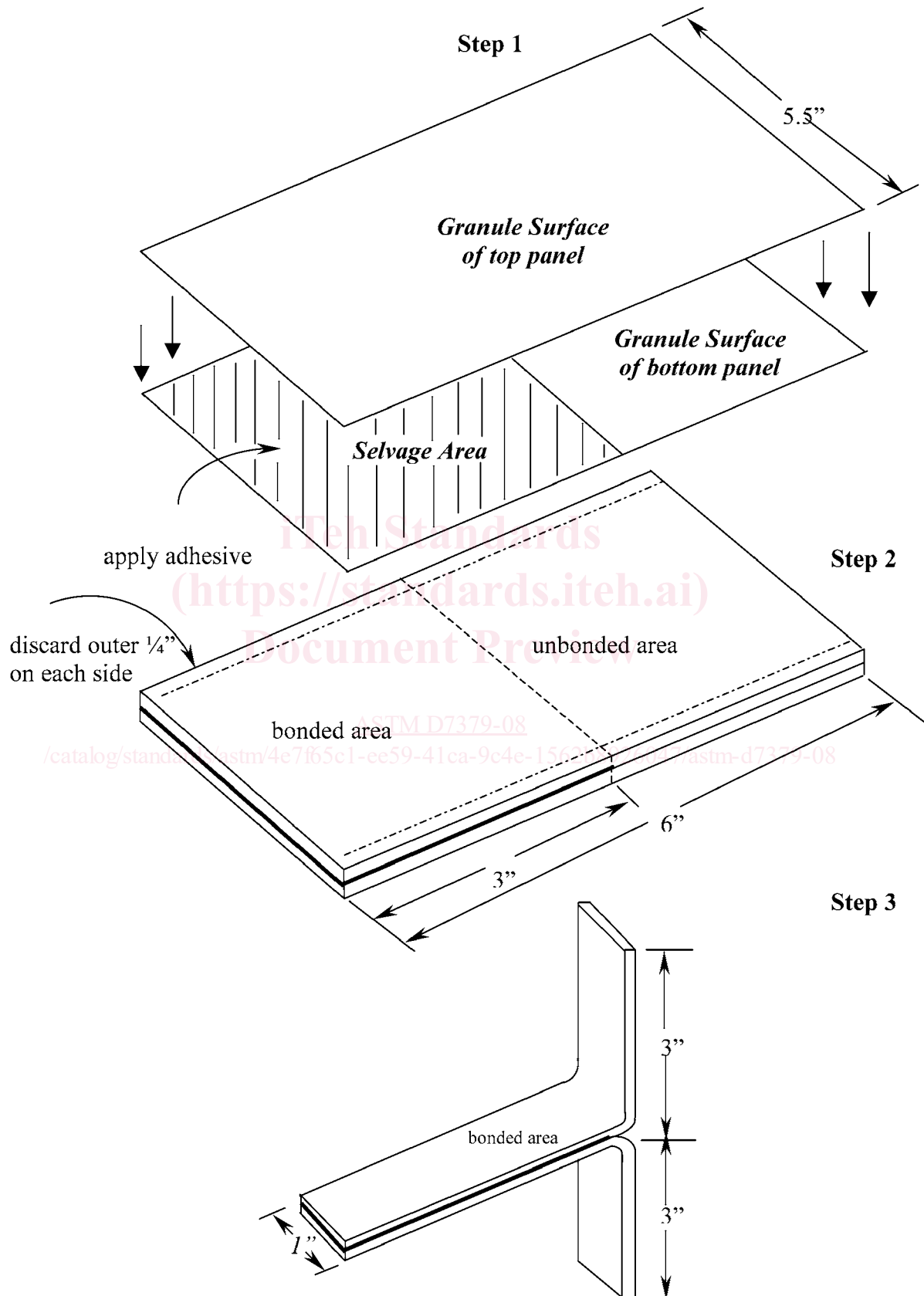


FIG. 1 T-Peel Bonding Configuration for a Modified Bitumen Lap