



Standard Test Method for Yield Strength of Preformed Tape Sealants¹

This standard is issued under the fixed designation C 908; 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 This test method covers a laboratory procedure for determining the yield strength of preformed tape sealants.

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

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.*

NOTE 1—There are no ISO standards similar or equivalent to this ASTM standard.

2. Referenced Documents

2.1 ASTM Standards:

C 717 Terminology of Building Seals and Sealants²

E 177 Practice for Use of the Terms Precision and Bias in ASTM Test Methods³

E 691 Practice for Conducting an Interlaboratory Study to Determine the Precision of a Test Method³

3. Terminology

3.1 Refer to Terminology C 717 for definitions of the following terms used in this test method: adhesive failure; cohesive failure; elongation; modulus; primer; substrate; and tape sealant.

4. Significance and Use

4.1 Tape sealants are tacky, deformable solids that are used under compression between two or more surfaces of similar or dissimilar materials in a variety of sealing applications. This procedure is not intended to simulate an actual use condition but will give some indication of the cohesive and adhesive

bonding properties of the tape. It also provides an indication of the modulus and tensile strength of the sealant tape composition.

5. Apparatus

5.1 *Glass Plates*, two, each 6.35 by 76.2 by 76.2 mm ($\frac{1}{4}$ by 3 by 3 in.).

NOTE 2—Other substrates such as aluminum, acrylic, ABS, etc., may be substituted for the plates (5.1) and panels (5.2).

5.2 *Steel Panels*, two, cold-rolled, each 0.762 by 76.2 by 76.2 mm (0.03 by 3 by 3 in.) (Note 2).

5.3 *Laboratory Press*, or equivalent.

5.4 *Tension Testing Machine*, or equivalent, with a jaw separation rate of 25 mm (1 in.)/min.

5.5 *Recorder*, for recording the tension load in pascals (or pounds-force).

5.6 *Rule*.

5.7 *Spacers*, 5.1 by 5.1 by 76.2 mm (0.20 by 0.20 by 3 in.).

6. Sampling

6.1 Take samples to be tested taken from a fresh roll of tape sealant after first removing and discarding approximately the first 0.61 m (2 ft) of the roll.

6.2 Sealant tape configuration should be 9.53 by 9.53 mm ($\frac{3}{8}$ by $\frac{3}{8}$ in.). If the sample does not approximate these dimensions, the sample should be re-extruded rather than plied up to conform to the specified size.

7. Test Specimens

7.1 Prepare two test specimens per sample as follows:

7.1.1 Clean the glass plates with a suitable solvent, such as methyl ethyl ketone.

7.1.2 Clean the steel plates with a suitable solvent, such as methyl ethyl ketone.

NOTE 3—If the steel panels have been painted or prepared with other specified surface treatments, omit this cleaning procedure.

NOTE 4—Primers may be used.

7.1.3 Place two 76.2 by 9.53 by 9.53-mm (3 by $\frac{3}{8}$ by $\frac{3}{8}$ -in.) lengths of tape on one of the steel plates, located as shown in Fig. 1, and remove the release paper. Place a spacer outboard of each tape. Place a glass plate over the tape to complete the test specimen assembly in accordance with Fig. 1.

¹ This test method is under the jurisdiction of ASTM Committee C24 on Building Seals and Sealants and is the direct responsibility of Subcommittee C24.30 on Adhesion.

Current edition approved Jan. 10, 2000. Published April 2000. Originally published as C 908 – 79. Last previous edition C 908 – 95.

² *Annual Book of ASTM Standards*, Vol 04.07.

³ *Annual Book of ASTM Standards*, Vol 14.02.