



Designation: D6325 – 98 (Reapproved 2004)

Standard Test Method for Determining Open Assembly Time of Carpet Mastic Adhesives¹

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1. Scope

1.1 This test method describes a procedure to measure open assembly time for a troweled carpet adhesive.

1.2 This test method provides an evaluation of the ability of an adhesive to effectively wet out the intended carpet backing.

1.3 The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are for information only.

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:*²

C679 Test Method for Tack-Free Time of Elastomeric Sealants

D618 Practice for Conditioning Plastics for Testing

D907 Terminology of Adhesives

3. Terminology

3.1 *Definitions:*

3.1.1 Many of the terms in this test method are defined in Terminology **D907**.

4. Significance and Use

4.1 The ability to have a sufficient open assembly time is critical when bonding a carpet. An adhesive with too short an open assembly time will not allow the installer enough time to position the carpet before the adhesive is dried beyond use. A product with too long an open assembly time will not provide

enough dry time for the carpet to bond to the intended substrate without movement of the carpet.

4.2 The test method provides a means of measuring the open assembly time for an adhesive. Use of such a test method can aid both the manufacturer to develop and the user to select the appropriate adhesive for the installation of carpet.

4.3 Test Method **C679** was used as a model for this test method.

5. Apparatus

5.1 *Applicator Trowel*— $\frac{1}{8}$ in. (3.2 mm) wide, $\frac{1}{8}$ in. (3.2 mm) deep, $\frac{1}{16}$ in. (1.6 mm) space V-notch.

5.2 *One-kg Weight*, at least 2 in. (51 mm) in diameter.

5.3 *Chronometer*.

6. Materials

6.1 *Adhesive*—Any appropriate adhesive used to install carpet.

6.2 *Polyethylene*—Low density (LDPE) with a 0.006 in. (0.15 mm) thickness.

6.3 *Glass*, 12 in. by 12 in.

7. Conditioning

7.1 Condition the LDPE, glass, and adhesive to be tested 24 h prior to testing at $73.4 \pm 3.6^\circ\text{F}$ ($23 \pm 2^\circ\text{C}$) and $50 \pm 5\%$ relative humidity according to Practice **D618**.

8. Sample Preparation

8.1 Cut the LDPE into twenty 2 in. (50.8 mm) by 2 in. (50.8 mm) pieces.

9. Procedure

9.1 Hold the trowel at a 45° angle and spread enough adhesive to cover the entire glass surface. Start the chronometer.

9.2 Place an LDPE square on the adhesive taking care not to put unnecessary pressure on it.

9.3 Apply the 1-kg weight on the LDPE for 10 s.

9.4 Grasp one end of the LDPE square and slowly peel away (at a 90 degree angle) the LDPE within 5 s. Record the percentage of the adhesive transferred to the LDPE.

¹ This test method is under the jurisdiction of ASTM Committee **D14** on Adhesives and is the direct responsibility of Subcommittee **D14.70** on Construction Adhesives.

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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.