Designation: D6005 – 03 (Reapproved 2017)

Standard Test Method for Determining Slump Resistance of Carpet Adhesives[1]

This standard is issued under the fixed designation D6005; 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 describes a procedure to measure slump, or sag, resistance of a trowel-grade carpet adhesive using a button slump test apparatus.

1.2 This test method provides a visual evaluation to relate troweled bead profile and trowel pickup.

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

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.*

1.5 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

D618 Practice for Conditioning Plastics for Testing

D907 Terminology of Adhesives

D2202 Test Method for Slump of Sealants

3. Terminology

3.1 *Definitions*—Many of the terms in this test method are defined in Terminology D907.

4. Significance and Use

4.1 During application, end users typically remove the adhesive from the container using the trowel and spread it onto the desired substrate. Adhesives with good rheological characteristics, therefore, will allow trowel retention. Adhesives with poor rheological characteristics tend to be unacceptable because they cannot be picked up by a trowel.

4.2 Bead configuration is important in order to provide proper wetting/contact of the carpet backing. Beads drawn with a trowel, which show a nonslumping ridge, are preferred because they allow good contact to both substrates.

4.3 Measurement of the slump resistance of the adhesive will allow an end user to know if an adhesive is capable of both adhering well to the trowel during application and maintain a nonflowing adhesive ridge.

5. Apparatus

5.1 *Slump Test Jig,* constructed in accordance with Test Method D2202.

5.2 *Gravity Convection Oven,* having a temperature controlled at 122 ± 3.6°F (50 ± 2°C).

5.3 *Steel Spatula.*

6. Materials

6.1 *Adhesive*—Any appropriate adhesive used to install floor covering.

6.2 *Solvent*—Any appropriate reagent.

7. Conditioning

7.1 Condition the slump jig and adhesive to be tested 24 h at 73.4 ± 3.6°F (23 ± 2°C) and 50 % ± 5 % relative humidity prior to testing.

8. Procedure

8.1 Place the slump jig on a level table with the front face upward and the plunger depressed to the limit of its travel.

8.2 Apply the adhesive into the cavity of the slump jig. Use a steel spatula to level the adhesive flush with the surface of the test jig.

8.3 Place the jig immediately on its end and advance the plunger to one half of its maximum travel, 3⁄16 in. (4.75 mm).

[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.

8.4 Place the jig immediately in a vertical position on a level shelf in the oven and condition it 30 min at 122.0 ± 3.6°F (50 ± 2°C) or at a temperature otherwise agreed upon between the supplier and the tester.

8.5 At the end of the 30-min period, take a reading, to the nearest 0.01 in. (0.2 mm) of the maximum point of flow of the adhesive.

8.6 Clean the jig using an appropriate solvent.

9. Report

9.1 Report the following information:

9.1.1 The type of adhesive used.

9.1.2 The slump resistance of the adhesive.

9.1.3 The test conditions.

10. Precision and Bias

10.1 The precision and bias of this test method for measuring the slump resistance of carpet adhesives is essentially as specified in Test Method D2202.

11. Keywords

11.1 adhesive; floorcovering; slump resistance