



Designation: D8089 – 17

Standard Practice for Accelerated Heat Aging for Floor Covering Adhesives¹

This standard is issued under the fixed designation D8089; 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 practice describes a procedure to determine the physical properties and longevity of the floor covering adhesive and the effect on it following accelerated heat aging.

1.2 This practice assists in determining compatibility of adhesive and respective floor covering for long term use.

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, health, and environmental 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

D123 Terminology Relating to Textiles

D907 Terminology of Adhesives

D1084 Test Methods for Viscosity of Adhesives

D1337 Practice for Storage Life of Adhesives by Viscosity and Bond Strength

D6004 Test Method for Determining Adhesive Shear Strength of Carpet Adhesives

D6862 Test Method for 90 Degree Peel Resistance of Adhesives

D7799 Specification for Tufted and Woven Broadloom Car-

pet Adhesives Without Homogenous PVC or Non-PVC Backings

D7888 Practice for Evaluating Adhesive and the Effects of Plasticizer Found Within Polyvinyl Chloride-Backed Floor Coverings

E177 Practice for Use of the Terms Precision and Bias in ASTM Test Methods

E691 Practice for Conducting an Interlaboratory Study to Determine the Precision of a Test Method

F141 Terminology Relating to Resilient Floor Coverings

F2199 Test Method for Determining Dimensional Stability of Resilient Floor Tile after Exposure to Heat

3. Terminology

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

4. Significance and Use

4.1 The final appearance of an installed floor depends upon several factors. These include but are not limited to the manufacture of the flooring material, the preparation of the subfloor and the skill of the installer. This practice is used to measure the ability of the adhesive to retain its original physical properties and adhesion following exposure to heat simulating a long service life at reasonable and expected temperatures.

4.2 In selecting or developing a carpet or resilient flooring or other adhesive, it is critical to have knowledge regarding how well the adhesive will bond to the substrate and to the flooring material.

4.3 Heat accelerated aging is necessary to establish the stability of the adhesive as it concerns storage/shelf life including viscosity (Test Method D1084) while remaining in an unopen container for prolonged periods.

4.4 In determining the applicable physical properties for shear strength (Test Method D6004) and peel strength (Test Method D6862) for the determination of dimensional stability of the assembled flooring material.

5. Apparatus

5.1 Use trowel notching as recommended by floor manufacturer or appropriate. This method can be used for spray or roller applications.

¹ This practice is under the jurisdiction of ASTM Committee D14 on Adhesives and is the direct responsibility of Subcommittee D14.10 on Working Properties.

Current edition approved Nov. 15, 2017. Published December 2017. DOI: 10.1520/D8089-17.

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.