Designation: D2860/D2860M – 04 (Reapproved 2010)

Standard Test Method for Adhesion of Pressure-Sensitive Tape to Fiberboard at 90° Angle and Constant Stress[1]

This standard is issued under the fixed designation D2860/D2860M; 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.

This standard has been approved for use by agencies of the U.S. Department of Defense.

1. Scope

1.1 This test method covers the determination of the property of adhesion of pressure-sensitive tape to a fiber-board surface. The user of this test method has the option of choosing the paper surface for the test. The test surface may be the standard linerboard, another linerboard (or paper) of individual interest, or a specific fiberboard.

1.2 The values stated in either SI or inch-pound units are to be regarded separately as standard. The values stated in each system are not exact equivalents; therefore, each system must be used independently, without combining values in any way.

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]

D996 Terminology of Packaging and Distribution Environments

D2904 Practice for Interlaboratory Testing of a Textile Test Method that Produces Normally Distributed Data (Withdrawn 2008)[3]

D2906 Practice for Statements on Precision and Bias for Textiles (Withdrawn 2008)[3]

D4332 Practice for Conditioning Containers, Packages, or Packaging Components for Testing

3. Terminology

3.1 *Definitions*—Terminology found in Terminology D996 shall apply.

4. Summary of Test Method

4.1 *Procedure A*—The pressure-sensitive tape is mounted on a rigid panel. The adhesive side is exposed. A strip of linerboard, which represents the fiberboard, is placed against the tape adhesive with controlled pressure. The area of contact is specified. The panel is mounted in a horizontal position. A specified mass is fastened to one end of the linerboard. The mass acts to peel the linerboard away from the adhesive at an angle of 90°. The time required to peel the linerboard from the tape is measured.

4.2 *Procedure B*—In this procedure, the fiberboard or the linerboard representing it is adhered to a rigid panel and the tape peeled from it. In all other respects, the procedure is the same as Procedure A.

5. Significance and Use

5.1 This test method is designed to show the adhesion of a pressure-sensitive tape to fiberboard when the tape is under a constant stress. Test data from this test method for some types of packaging tape relates to tape performance on fiberboard box closure.

5.2 Procedure A should be used when comparing tapes to an established requirement. The requirement may be established using either the standard linerboard or another linerboard representing a specific fiberboard.

5.3 Procedure B should be used to rank tapes as to their ability to adhere to fiberboard.

6. Apparatus and Materials

6.1 *Tape,* pressure-sensitive, double-coated, 48-mm [2-in.] width. The tape shall exhibit sufficient adhesion to the panel and test specimen or fiberboard to avoid the failures cited in 10.1.9 and 10.2.14.

6.2 *Panel*—Any steel piece at least 50 by 125 mm [2 by 5 in.] and no less than 1.1 mm [0.043 in.] thick, having one face

[1] This test method is under the jurisdiction of ASTM Committee D10 on Packaging and is the direct responsibility of Subcommittee D10.14 on Tape and Labels.

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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.

[3] The last approved version of this historical standard is referenced on www.astm.org.

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