



Designation: D3330/D3330M – 04 (Reapproved 2018)

Standard Test Method for Peel Adhesion of Pressure-Sensitive Tape¹

This standard is issued under the fixed designation D3330/D3330M; 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 These test methods cover the measurement of the peel adhesion of pressure-sensitive tapes.

1.1.1 Test Method A gives a measure of the adherence, when peeled at 180° angle, to a standard steel panel or to other surface of interest for a single-coated tape.

1.1.2 Test Method B gives a measure of the adherence to the backing of a single-coated tape.

1.1.3 Test Method C gives a measure of the adherence of double-coated tape to a standard steel panel or other surface of interest.

1.1.4 Test Method D gives a measure of the adherence of the release liner to the adhesive of either single- or double-coated tape.

1.1.5 Test Method E gives a measure of the adherence of an adhesive transfer tape to a standard steel panel or other surface of interest.

1.1.6 Test Method F gives a measure of the adherence, when peeled at 90° angle, to a standard steel panel or other surface of interest for a single-coated tape.

1.2 These test methods provide a means of assessing the uniformity of the adhesion of a given type of pressure-sensitive adhesive tape. The assessment may be within a roll of tape, between rolls, or between production lots.

1.3 Variations in either the tape backing or the adhesive, or both, affect the response. Therefore, these test methods cannot be used to pinpoint the specific cause(s) of non-uniformity.

1.4 These test methods may not be appropriate to test tapes having relatively stiff backings, stiff liners, or backings showing high stretch at low forces. These characteristics will result in a high variability for the test response which is not a true indication of the real nature of the adhesive bond.

1.5 Values stated in either SI or inch-pound units are to be regarded separately as standard. The values stated in each

system may not be exact equivalents, therefore, each system must be used independently without combining values in any way.

1.6 *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.*

1.7 *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

A666 Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar

D996 Terminology of Packaging and Distribution Environments

D3715/D3715M Practice for Quality Assurance of Pressure-Sensitive Tapes

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

D5750/D5750M Guide for Width and Length of Pressure-Sensitive Tape

E122 Practice for Calculating Sample Size to Estimate, With Specified Precision, the Average for a Characteristic of a Lot or Process

2.2 AFERA Standard:³

4001 Self adhesive tapes – Measurement of peel adhesion

2.3 European Norm:⁴

EN 1939 Self adhesive tapes – Measurement of peel adhesion from stainless steel or from its own backing

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.

Current edition approved Oct. 1, 2018. Published November 2018. Originally approved in 1976. Last previous edition approved in 2010 as D3330/D3330M – 04(2010). DOI: 10.1520/D3330_D3330M-04R18.

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 Association des Fabricants Européens de Rubans Auto Adhésifs (AFERA), LAM, Laan Copes van Cattenburch 79, NL-2858 EW, The Hauge, Netherlands.

⁴ European Norm, (EN); available from Comité Européen de Normalisation (CEN), Rue de Stassart, 36, B-1050, Brussels, Belgium.