



Standard Test Method for Peel Adhesion of Pressure-Sensitive Label Stocks at a 90° Angle¹

This standard is issued under the fixed designation D6252/D6252M; 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 covers the measurement of the peel adhesion of pressure-sensitive label stocks. This test method gives a measure of the adherence to a standard steel substrate or to other surfaces of interest for a pressure-sensitive label stock.

1.2 This test method provides a means of assessing the uniformity of the adhesion of a given type of pressure-sensitive label stock. The assessment may be within a sheet or roll, between sheets or rolls, or between production lots.

1.3 Variations in the label stock facestock and adhesive can affect the response; therefore, this test method cannot be used to pinpoint the specific cause(s) of nonuniformity.

1.4 This test method may not be appropriate to test label stocks having either stiff backings or backings showing a high stretch at low forces. These characteristics could result in a high variability of the test response, which is not a true indication of the real nature of the adhesive bond.

1.5 The values stated in either SI or inch-pound units are to be regarded separately as the 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 and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:²

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 April 1, 2011. Published April 2011. Originally approved in 1998. Last previous edition approved in 2004 as D6252/D6252M - 98 (2004). DOI: 10.1520/D6252_D6252M-98R11.

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.

- [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](#)
- [E122 Practice for Calculating Sample Size to Estimate, With Specified Precision, the Average for a Characteristic of a Lot or Process](#)

3. Terminology

3.1 *Definitions*—Definitions of terms used in this test method are in accordance with Terminology D996.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *pressure-sensitive label stock, n*—the combination of facestock (face material), pressure-sensitive adhesive, and release liner.

4. Summary of Test Method

4.1 A strip of label stock is applied to a standard test panel, or other surface of interest, with controlled pressure. The label stock is peeled from the panel at 90° angle at a specified rate, during which time the force required to effect peeling is measured.

NOTE 1—The pressure-sensitive adhesive (psa) is permanently tacky and instantly adheres to the surface for which the label stock is designed. A psa label stock also can be defined as a self-adhering label stock.

5. Significance and Use

5.1 This test method is a tool for quality assurance use. Given a pressure-sensitive label stock and a requirement in terms of the minimum or maximum peel adhesion value expected for this label stock, the data from the test can be used in conjunction with acceptance criteria.

5.2 This test method can show the relative bond strength of a given label stock to one or more surfaces of varied material and texture as compared to the standard stainless steel panel. Substitution of panels representative of the proposed substrates for the standard stainless steel panel would be acceptable for this procedure.