



# Standard Test Method for Thickness of Pressure-Sensitive Tapes<sup>1</sup>

This standard is issued under the fixed designation D3652/D3652M; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

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

## 1. Scope

1.1 This test method covers the determination of the thickness of pressure-sensitive tapes at standard conditions.

1.2 This test method is intended to replace AFERA 4006<sup>2</sup> and PSTC 33.<sup>2</sup>

1.3 The values stated in either SI units 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 shall be used independently of the other. Combining values from the two systems may result in non-conformance with the 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.*

## 2. Referenced Documents

2.1 *ASTM Standards:*<sup>3</sup>

[D996 Terminology of Packaging and Distribution Environments](#)

[D2904 Practice for Interlaboratory Testing of a Textile Test Method that Produces Normally Distributed Data \(Withdrawn 2008\)](#)<sup>4</sup>

[D2906 Practice for Statements on Precision and Bias for Textiles \(Withdrawn 2008\)](#)<sup>4</sup>

[D3715/D3715M Practice for Quality Assurance of Pressure-Sensitive Tapes](#)

<sup>1</sup> 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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<sup>2</sup> AFERA: Association des Fabricants de Rubans Auto-Adhesif; PSTC: Pressure Sensitive Tape Council (U.S.A.).

<sup>3</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

<sup>4</sup> The last approved version of this historical standard is referenced on [www.astm.org](http://www.astm.org).

[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*—Terms found in Terminology [D996](#) shall apply.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *thickness (caliper, gage)*—the perpendicular distance between opposite surfaces of a tape expressed in mils [1/1000 in.]; usually measured under slight pressure with a special gage.

## 4. Significance and Use

4.1 Thickness is an important property of tapes, and this dimension is important for certain end uses. This test method is useful for quality control and for acceptance testing for conformance to specifications.

## 5. Apparatus

5.1 *Caliper Gage*, with the following requirements:

5.1.1 Two plain faces, the smaller of which is circular and 8 to 16 mm [0.32 to 0.64 in.] in diameter. The faces shall be parallel to within 0.005 mm [0.0002 in.] and constrained to move apart along an axis perpendicular to them.

5.1.2 When the specimen is placed between the faces, the force should be such that the specimen shall be under a 50 to 60 kPa [7.3 to 8.7 psi].

5.1.3 The distance between the graduations on the dial shall be such as to permit estimating the thickness to at least 0.002 mm [0.0001 in.].

## 6. Sampling

6.1 *Acceptance Sampling*—Sampling shall be in accordance with Practice [D3715/D3715M](#).

6.2 *Sampling for Other Purposes*—The sampling and the number of test specimens depends on the purpose of testing. Practice [E122](#) is recommended. It is common to test at least five specimens of a particular tape. Test specimens should be taken from several rolls of a tape and, whenever possible,