



Designation: D 3652/D 3652M – 01

Standard Test Method for Thickness of Pressure-Sensitive Tapes¹

This standard is issued under the fixed designation D 3652/D 3652M; 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 specification 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 The 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.

1.3 This test method is intended to replace AFERA 4006² and PSTC 33².

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:

D 996 Terminology of Packaging and Distribution Environments³

D 2904 Practice for Interlaboratory Testing of a Textile Test Method that Produces Normally Distributed Data⁴

D 2906 Practice for Statements on Precision and Bias for Textiles⁴

D 3715/D 3715M Practice for Quality Assurance of Pressure-Sensitive Tapes³

D 4332 Practice for Conditioning Containers, Packages, or Packing Components for Testing³

E 122 Practice for Choice of Sample Size to Estimate a

Measure of Quality for a Lot or Process⁵

3. Terminology

3.1 *Definitions*—Terms found in Terminology **D 996** 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 **D 3715/D 3715M**.

6.2 *Sampling for Other Purposes*—The sampling and the number of test specimens depends on the purpose of testing. Practice **E 122** is recommended. It is common to test at least five specimens of a particular tape. Test specimens should be

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 AFERA: Association des Fabricants de Rubans Auto-Adhesif; PSTC: Pressure Sensitive Tape Council (U.S.A.).

³ *Annual Book of ASTM Standards*, Vol 15.09.

⁴ *Annual Book of ASTM Standards*, Vol 07.01.

⁵ *Annual Book of ASTM Standards*, Vol 14.02.