



Designation: ~~D2346-00(Reapproved 2004)~~ Designation: D 2346 – 00 (Reapproved 2008)

Standard Test Method for Apparent Density of Leather¹

This standard is issued under the fixed designation D 2346; 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 Department of Defense.

1. Scope

1.1 This test method covers the determination of the apparent density of specimens of leather. This test method does not apply to wet blue.

1.2 *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

D 1813 [Test Method for Measuring Thickness of Leather Test Specimens](#)

D 2347 [Test Method for Measuring Area of Leather Test Specimens](#)

3. Terminology

3.1 Definition:

3.1.1 *apparent density*—the weight of a unit volume of bulk leather conditioned for 48 h in an atmosphere maintained at 73.4 \pm 1.8°F (23 \pm 1°C) and 50 \pm 4 % relative humidity.

4. Significance and Use

4.1 This test method is designed to determine the apparent density of specimens from their area and thickness. By measuring apparent density, the degree of loading or of compression of leather can be evaluated. The test method is unsuitable for very soft leathers such as chamois whose thickness cannot be accurately measured by the test method cited.

5. Apparatus

5.1 *Round Die*, 2.7 to 3.0 in. (68.6 to 76.2 mm) in diameter.

5.2 *Mallet or Clicking Machine*.

5.3 *Rule or Steel Tape*, graduated in 1/32 in. or 0.02 in. or in millimetres.

5.4 *Balance* and set of weights.

5.5 *Thickness Gage* as described in Test Method D 1813.

6. Test Specimen

6.1 The test specimen shall be a disk of leather that has been conditioned as specified in 3.1.1. This specimen may be the same as that used in Test Method D 2347.

7. Procedure

7.1 Weigh the specimen to the nearest 0.001 g.

7.2 Measure the thickness to the nearest 0.025-cm in four quadrants of the specimen disk, equidistant from the rim and center (10 mil = 0.025 cm).

7.3 Measure the area to the nearest second decimal place in accordance with Test Method D 2347.

¹ This test method is under the jurisdiction of ASTM Committee D31 on Leather and is the direct responsibility of Subcommittee D31.03 on Footwear. This test method was developed in cooperation with the American Leather Chemists Assn. (Standard Method E 62 – 1972).

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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.