



Designation: D1516 – 05 (Reapproved 2010)

Standard Test Method for Width of Leather¹

This standard is issued under the fixed designation D1516; 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 determination of the width of physical test specimens and of regularly shaped units and pieces of all types of leather. This test method does not apply to wet blue.

1.2 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.3 *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

D1610 Practice for Conditioning Leather and Leather Products for Testing

3. Significance and Use

3.1 This test method is designed to measure the width of specimens before and after they are subjected to various tests which may change the width. A test procedure wherein such measurements could be used is the change in area of square pieces when measuring the resistance of leather to synthetic perspiration solution.

4. Apparatus

4.1 *Steel Scale*, graduated to 0.02 in. (0.5 mm).

4.2 *Steel Tape*, graduated to $1/16$ in. or in millimetres.

¹ This test method is under the jurisdiction of ASTM Committee D31 on Leather and is the direct responsibility of Subcommittee D31.07 on Physical Properties. This test method has been developed in cooperation with the American Leather Chemists Assn. (Standard Method E5-1961).

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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.

5. Specimen

5.1 The specimen shall be the prepared test specimen, unit, or piece. It shall be conditioned for 48 h in an atmosphere maintained at $73.4 \pm 1.8^\circ\text{F}$ ($23 \pm 1^\circ\text{C}$) and $50 \pm 4\%$ relative humidity and tested under these conditions. See Practice D1610.

6. Procedure

6.1 *Test Specimens*—Place the specimen on a flat surface and flatten it out without pulling or stretching. Measure the width to the nearest 0.02 in. (0.5 mm) at the locations designated in the test method for making the particular test for which the specimen was prepared.

7. Calculation and Report

7.1 Report the width of the test specimens used as prescribed in the test method for making the particular physical test for which the specimen was prepared.

7.2 Report the average of the width measurements taken on any unit or piece to the same accuracy as observed on the original measurements, as the width of the piece.

8. Precision and Bias³

8.1 The following criteria may be used to judge the acceptability of results if at least 15 units have been tested.

8.2 A coefficient of variation of 1.8 % can be expected between laboratories on specimens of headband leather subjected to a perspiration test.

NOTE 1—The data used as a basis for this reproducibility statement was obtained on a round robin with 3 laboratories measuring width on the same specimens. The specimens were 51 mm by 51 mm before the perspiration testing.

8.3 *Bias*—No justifiable statement on bias can be made since the true value of width of leather test specimens cannot be established by an accepted reference method.

9. Keywords

9.1 area change; leather; width

³ Supporting data for the reproducibility statement are filed at ASTM Headquarters and may be obtained by requesting Research Report RR:D31-1007.