



Designation: D3775 – 03a

Standard Test Method for Warp End Count and Filling Pick Count of Woven Fabric¹

This standard is issued under the fixed designation D3775; 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 approval. 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 measurement of warp end count and filling pick count and is applicable to all types of woven fabrics.

NOTE 1—Historically the term fabric count has been used to describe the warp end count and the filling pick count in woven fabrics. The terms warp end count and filling pick count are replacing the term fabric count to provide clarity and agreement with the text and the intent of Test Method D 3775.

1.2 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

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

D 123 Terminology Relating to Textiles

D 1776 Practice for Conditioning and Testing Textiles

D 4850 Terminology Relating to Fabric

2.2 Other Standard:

ANSI/ASQC Z1.4—Inspection by Attributes³

3. Terminology

3.1 Definitions:

3.1.1 For definitions of textile terms used in this test method; count, end, end count, filling, pick, pick count, and thread count, refer to Terminology D 4850.

3.1.2 For other textile terms used in this test method, refer to Terminology D 123.

4. Summary of Test Method

4.1 The number of warp yarns (ends) per unit distance and filling yarns (picks) per unit distance are determined using suitable magnifying and counting devices or by raveling yarns from fabrics.

5. Significance and Use

5.1 This test method is considered satisfactory for acceptance testing of commercial shipments because it has been used extensively in the trade for that purpose.

5.1.1 If there are differences of practical significance between reported test results for two laboratories (or more), comparative test should be performed to determine if there is a statistical bias between them, using competent statistical assistance. As a minimum, use the samples for such a comparative test that are as homogeneous as possible, drawn from the same lot of material as the samples that resulted in disparate results during initial testing and randomly assigned in equal numbers to each laboratory. The test results from the laboratories involved should be compared using a statistical test for unpaired data, a probability level chosen prior to the testing series. If bias is found, either its cause must be found and corrected, or future test results for that material must be adjusted in consideration of the known bias.

6. Apparatus

6.1 Use any suitable device, such as pick glass, rule and pointer, microfilm reader, or projection equipment.

6.2 Use a scale graduated in mm ($1/16$ in.) to measure the width of the fabric test specimen to be raveled for a count of yarns.

7. Sampling

7.1 *Lot Sample*—As a lot sample for acceptance testing, take at random the number of rolls of fabric as directed in an applicable material specification or other agreement between the purchaser and the supplier. Consider rolls of fabric to be the primary sampling units.

¹ This test method is under the jurisdiction of ASTM Committee D13 on Fabric Test Methods, Specific

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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.

³ Available from American National Standards Institute, 11 W. 42nd St., 13th Floor, New York, NY 10036.