



Designation: D2494 – 13 (Reapproved 2020)

Standard Test Method for Commercial Mass of a Shipment of Yarn or Manufactured Staple Fiber or Tow¹

This standard is issued under the fixed designation D2494; 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.

1. Scope

1.1 This test method provides a measurement of the commercial mass of a shipment of yarn or manufactured staple fiber or tow. This test method applies to (1) yarn of all fiber types except silk, glass, asbestos, and bast; (2) tops and slivers of all fiber types except wool, silk, glass, asbestos, and bast; and (3) manufactured fibers or tow, except glass and other fibers used for special purposes such as flock (**Note 1**).

NOTE 1—For other test methods for measuring mass of fibrous materials, refer to Practice D2720.

1.1.1 Sampling in this test method is primarily for use in acceptance testing rather than production control. Manufactured fiber producers usually sample for the commercial “mass” of product on an on-going basis rather than each shipment to a customer.

1.2 Commercial mass has been traditionally based on one of three options depending on the state of the material: (1) dried, unscoured yarn, staple fiber, tow, and so forth, using commercial moisture regain in the calculations; (2) dried, scoured yarn, staple fiber, tow, and so forth, using commercial moisture regain values in the calculations; and (3) dried, scoured yarn, staple fiber, tow, and so forth, using a defined allowance in the calculations.

1.3 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this 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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.5 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recom-*

mendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.

2. Referenced Documents

2.1 ASTM Standards:²

- D123 Terminology Relating to Textiles
- D629 Test Methods for Quantitative Analysis of Textiles
- D1909 Standard Tables of Commercial Moisture Regains and Commercial Allowances for Textile Fibers
- D2257 Test Method for Extractable Matter in Textiles
- D2258 Practice for Sampling Yarn for Testing
- D2720 Practice for Calculation of Commercial Weight and Yield of Scoured Wool, Top, and Noil for Various Commercial Compositions
- D3333 Practice for Sampling Manufactured Staple Fibers, Sliver, or Tow for Testing
- D3888 Terminology for Yarn Spinning Systems
- D3990 Terminology Relating to Fabric Defects
- D4849 Terminology Related to Yarns and Fibers

2.2 AATCC Standard:

- 150 Dimensional Changes in Automatic Home Laundering of Woven Garments³

3. Terminology

3.1 Definitions:

3.1.1 *commercial mass, n*—billed mass (weight) as determined by a generally accepted method or as agreed upon between the purchaser and the seller.

3.1.1.1 *Discussion*—The basis for determining the commercial mass of a shipment of yarn or manufactured fibers is generally one of the following:

(1) *CAS Basis (commercial allowance with scoured material)*—the mass of oven-dry fiber or yarn after scouring by definite prescribed methods plus the mass corresponding to its commercial allowance.

¹ This test method is under the jurisdiction of ASTM Committee D13 on Textiles and is the direct responsibility of Subcommittee D13.58 on Yarns and Fibers.

Current edition approved Feb. 1, 2020. Published March 2020. Originally published as D2494 – 66 T. Last previous edition approved in 2013 as D2494 – 13. DOI: 10.1520/D2494-13R20.

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 the American Association of Textile Chemists and Colorists, P.O. Box 12215, Research Triangle Park, NC 27709.