



Standard Specification for Tolerances for Knitted Fabrics¹

This standard is issued under the fixed designation D 3887; 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 specification covers test methods and tolerances applicable to the following properties of knitted fabrics: yield, mass (weight), width, length, fabric count, bursting strength, moisture regain, thickness, extractable matter, and fiber composition.

1.2 These tolerances are applicable to knitted fabrics of all types, such as warp knits, weft knits, flat bed knits, and the like.

NOTE 1—The values stated in SI units are to be regarded as the standard.

2. Referenced Documents

2.1 ASTM Standards:

- D 123 Terminology Relating to Textiles²
- D 629 Test Methods for Quantitative Analysis of Textiles²
- D 2257 Test Method for Extractable Matter in Textiles²
- D 2494 Test Method for Commercial Mass of a Shipment of Yarn or Man-Made Staple Fiber or Tow²
- D 2654 Test Methods for Moisture in Textiles²
- D 2720 Practice for Calculation of Commercial Weight and Yield of Scoured Wool, Top, and Noil for Various Commercial Compositions²
- D 2905 Practice for Statements on Number of Specimens for Textiles²
- D 3773 Test Methods for Length of Woven Fabric³
- D 3774 Test Method for Width of Woven Fabric³
- D 3776 Test Method for Mass per Unit Area (Weight) of Fabric³
- D 3786 Test Method for Hydraulic Bursting Strength of Knitted Goods and Nonwoven Fabrics—Diaphragm Bursting Strength Tester Method³
- D 3787 Test Method for Bursting Strength of Knitted Goods—Constant-Rate-of-Traversal (CRT), Ball Burst Test³

2.2 Other Documents:

Textile Fiber Products Identification Act⁴

Wool Products Labeling Act of 1939⁵

2.3 Military Standard:⁶

MIL-STD-105D Sampling Procedures and Tables for Inspection by Attributes

NOTE 2—Reference to test methods in this specification give only the permanent part of the ASTM designation. The current editions of each test method cited shall prevail.

3. Terminology

3.1 Definitions:

3.1.1 *bursting strength, n*—the force or pressure required to rupture a fabric by distending it, when applied at right angles to the plane of the fabric, under specified conditions.

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

3.1.2.1 *Discussion*—The basis for determining the commercial weight (mass) of a shipment of textile product is generally one of the following:

(1) Man-Made Fibers:

(a) *CMRU Basis* (commercial moisture regain with unscoured material)—the weight (mass) of unscoured, moisture-free textile product plus the weight (mass) corresponding to its commercial *moisture regain*.

(b) *CMRS Basis* (commercial moisture regain with scoured material)—the weight (mass) of moisture-free textile product after scouring by definite prescribed methods plus the weight corresponding to its commercial *moisture regain*.

(c) *CAS Basis* (commercial allowance with scoured material)—the weight (mass) of moisture-free textile product after scouring by definite prescribed methods plus the weight corresponding to its *commercial allowance*.

(d) *UN Basis* (unadjusted net)—the weight (mass) of unscoured textile product with no adjustment for the amount of moisture or finish, or both.

(2) Wool:

(a) *CC Basis* (commercial composition)—the weight (mass) of wool base as determined by definite prescribed methods plus the weights (masses) of moisture and other components corresponding to the commercial composition of the commercially designated material (for explanation, see Practice D 2720).

(b) *UN Basis* (unadjusted net)—the weight (mass) of unscoured textile product with no adjustment for the amount of moisture or finish, or other components.

¹ This specification is under the jurisdiction of ASTM Committee D13 on Textiles and is the direct responsibility of Subcommittee D13.61 on Apparel.

Current edition approved Oct. 10, 1996. Published February 1997. Originally published as D 3887 – 80. Last previous edition D 3887 – 95.

² *Annual Book of ASTM Standards*, Vol 07.01.

³ *Annual Book of ASTM Standards*, Vol 07.02.

⁴ Act of Congress, “Textile Fiber Products Identification Act,” 85th Congress, Second Session, approved Sept. 2, 1958.

⁵ Act of Congress, “Wool Products Labelling Act of 1939,” 76th Congress, Third Session, approved Oct. 14, 1939.

⁶ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.