



Standard Test Methods for Sewing Threads¹

This standard is issued under the fixed designation D204; 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 U.S. Department of Defense.

1. Scope

1.1 These test methods can be used to evaluate sewing threads of any fiber.

1.1.1 The test methods in this standard are intended to evaluate only sewing thread taken from thread holders.

1.2 These test methods only provide for the measurement of sewing thread physical properties. These test methods do not address any other properties that may be important for the satisfactory performance of sewing threads under particular end use conditions.

1.3 These test methods can be used to measure the following properties:

	Sections
Colorfastness to Drycleaning	73 – 83
Colorfastness to Laundering	62 – 72
Colorfastness to Water Migration	84 – 94
Diameter	43 – 50
Length per Thread Holder	34 – 42
Shrinkage, Single Strand	51 – 61
Dry Heat	58.1
Boiling Water	58.2
Strength and Elongation	15 – 21
Single Strand—Conditioned	19.1.1
Single Strand—Wet	19.1.2
Loop Strength	19.2
Knot Strength	19.3
Twist	22 – 27
Twist Balance	28 – 33
Yarn Number	7 – 14

NOTE 1—For methods covering tests on prepared seams, refer to Test Methods [D1683](#) and [D3940](#).

1.4 The values stated in SI units are to be regarded as standard; the values in English units are provided as information only and are not exact equivalents.

1.5 *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.*

¹ These test methods are under the jurisdiction of ASTM Committee [D13](#) on Textiles and are the direct responsibility of Subcommittee [D13.58](#) on Yarns and Fibers.

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2. Referenced Documents

2.1 ASTM Standards:²

- [D76](#) Specification for Tensile Testing Machines for Textiles
- [D123](#) Terminology Relating to Textiles
- [D1422](#) Test Method for Twist in Single Spun Yarns by the Untwist-Retwist Method
- [D1423](#) Test Method for Twist in Yarns by Direct-Counting
- [D1683](#) Test Method for Failure in Sewn Seams of Woven Apparel Fabrics
- [D1776](#) Practice for Conditioning and Testing Textiles
- [D1777](#) Test Method for Thickness of Textile Materials
- [D1907](#) Test Method for Linear Density of Yarn (Yarn Number) by the Skein Method
- [D2256](#) Test Method for Tensile Properties of Yarns by the Single-Strand Method
- [D2258](#) Practice for Sampling Yarn for Testing
- [D2724](#) Test Methods for Bonded, Fused, and Laminated Apparel Fabrics
- [D3693](#) Specification for Labeled Length per Holder of Sewing Thread
- [D3823](#) Practice for Determining Ticket Numbers for Sewing Threads
- [D3940](#) Test Method for Bursting Strength (Load) and Elongation of Sewn Seams of Knit or Woven Stretch Textile Fabrics (Withdrawn 1995)³
- [D4848](#) Terminology Related to Force, Deformation and Related Properties of Textiles
- [D4849](#) Terminology Related to Yarns and Fibers
- [D6193](#) Practice for Stitches and Seams

2.2 AATCC Standards:

- [Test Method 135](#) Dimensional Changes in Automatic Home Laundering of Woven and Knit Fabrics⁴
- [Evaluation Procedure 1](#), Gray Scale for Color Change⁴
- [Evaluation Procedure 3](#), Chromatic Transference Scale⁴

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 The last approved version of this historical standard is referenced on www.astm.org.

⁴ Available from American Association of Textile Chemists and Colorists, P.O. Box 12215, Research Triangle Park, NC 27709.