



Designation: D4034/D4034M – 19

Standard Test Method for Resistance to Yarn Slippage at the Sewn Seam in Woven Upholstery Fabrics¹

This standard is issued under the fixed designation D4034/D4034M; 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 This test method measures the resistance to slippage of warp yarns over filling yarns, or filling yarns over warp yarns, in woven upholstery fabrics, using a specific standard seam assembly by comparing the differences in test curves from a sewn and unsewn sample.

NOTE 1—This test method is derived from Test Method D434, from which appropriate changes have been made to make the method more applicable for upholstery fabrics.

NOTE 2—This test method is designed to be a fabric test and is considered to be technically different than Test Method D1683, which is considered to be a yarn / seam test.

1.2 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system are not necessarily exact equivalents; therefore, to ensure conformance with the standard, each system shall be used independently of the other, and values from the two systems shall not be combined.

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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.4 *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 Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

¹ This specification is under the jurisdiction of ASTM Committee D13 on Textiles and is the direct responsibility of Subcommittee D13.59 on Fabric Test Methods, General.

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2. Referenced Documents

2.1 ASTM Standards:²

D76/D76M Specification for Tensile Testing Machines for Textiles

D123 Terminology Relating to Textiles

D434 Test Method for Resistance to Slippage of Yarns in Woven Fabrics Using a Standard Seam (Withdrawn 2003)³

D1683 Test Method for Failure in Sewn Seams of Woven Fabrics

D1776 Practice for Conditioning and Testing Textiles

D4850 Terminology Relating to Fabrics and Fabric Test Methods

D5034 Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)

D6193 Practice for Stitches and Seams

E177 Practice for Use of the Terms Precision and Bias in ASTM Test Methods

E691 Practice for Conducting an Interlaboratory Study to Determine the Precision of a Test Method

3. Terminology

3.1 Definitions:

3.1.1 *direction of slippage, n*—at the seam, the line of movement parallel to either the filling or the warp on a woven fabric.

3.1.2 *resistance to yarn slippage, n*—the force in Newtons or pounds-force required to displace one or more yarns in a woven fabric from the original position, resulting in differences in alignment, or spacing, or both.

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.