



Designation: ~~D4113-95a (Reapproved 2001)~~ Designation: D 4113 – 02 (Reapproved 2008)

Standard Performance Specification for Woven Slipcover Fabrics¹

This standard is issued under the fixed designation D 4113; 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 performance specification covers woven fabrics comprised of any textile fiber or mixture of fibers to be used in slipcovers.

1.2 These requirements apply to both the length and width directions for those properties where fabric direction is pertinent.

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 434 Test Method for Resistance to Slippage of Yarns in Woven Fabrics Using a Standard Seam

~~D 1336 Test Method for Distortion of Yarn in Woven Fabrics²~~

~~D1424 Test Method for Tear Resistance of Woven Fabrics by Falling Pendulum (Elmendorf) Apparatus²~~ Test Method for Distortion of Yarn in Woven Fabrics

~~D 2261 Test Method for Tearing Strength of Woven Fabrics by the Tongue (Single Rip) Method (Constant-Rate-of-Extension Tensile Testing Machine)²~~

~~D2262 Test Method for Tearing Strength of Woven Fabrics by the Tongue (Single Rip) Method (Constant-Rate-of-Traverse Tensile Testing Machine)²~~ Test Method for Tearing Strength of Fabrics by the Tongue (Single Rip) Procedure (Constant-Rate-of-Extension Tensile Testing Machine)

D 2724 Test Methods for Bonded, Fused, and Laminated Apparel Fabrics

D 5034 Test Method for Breaking Force Strength and Elongation of Textile Fabrics (Grab Test)

2.2 AATCC Test Methods:³

8 Colorfastness to Crocking: AATCC Crockmeter Method 113-02(2008)

15 Colorfastness to Perspiration

16 Colorfastness to Light

23 Colorfastness to Burnt Gas Fumes

~~61 Colorfastness to Washing, Domestic, and Laundering, Commercial: Accelerated~~ Colorfastness to Laundering, Home and Commercial: Accelerated

116 Colorfastness to Crocking: Rotary Vertical Crockmeter Method

124 Appearance of ~~Durable Press~~ Fabrics After Repeated Home Launderings

129 Colorfastness to Ozone in the Atmosphere Under High Humidities

132 Colorfastness to Drycleaning

135 Dimensional Changes in Automatic Home Laundering of Woven or Knit Fabrics

187 Dimensional Changes of Fabrics: Accelerated

Evaluation Procedure No. 1 Gray Scale for Color Change

Evaluation Procedure No. 2 Gray Scale for Staining

¹ This specification is under the jurisdiction of ASTM Committee D13 on Textiles and is the direct responsibility of Subcommittee D13.63 on Home Furnishings. Current edition approved Dec. 10, 1995. Published May 1996. Originally published as D4113-82. Last previous edition D4113-95.

² This performance specification is under the jurisdiction of ASTM Committee D13 on Textiles and is the direct responsibility of Subcommittee D13.63 on Home Furnishings.

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³ 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*, Vol 07.01, volume information, refer to the standard's Document Summary page on the ASTM website.

⁴ Annual Book of ASTM Standards, Vol 07.02.

⁵ Available from American Association of Textile Chemists and Colorists (AATCC), P.O. Box 12215, Research Triangle Park, NC 27709, <http://www.aatcc.org>.

Evaluation Procedure No. 38 AATCC 9–Step Chromatic Transference Scale

2.3 *Other Document:*⁴

UFAC Fabric Classification Test Method for Cigarette Smolder Resistance

2.4 *Military Standard*⁵

MIL-STD-105D Sampling ASQ/ANSI Z1.4 Sampling Procedures and Tables for Inspection by Attributes

NOTE 1—Reference to test methods in this performance specification give only the permanent part of the designation of ASTM, AATCC, or other test methods. The current editions of each test method cited shall prevail.

3. Terminology

3.1 *Definitions:*

3.1.1 For definitions of textile terms used in this performance specification, refer to Terminology D 123 and the Technical Manual of the American Association of Textile Chemists and Colorists.

3.2 Definitions found in a dictionary of common terms are suitable for use in this performance specification.

4. Specification Requirements

4.1 The properties of woven fabrics for use in slipcovers shall conform to the specification requirements in Table 1.

5. Significance and Use

5.1 Upon agreement between the purchaser and the supplier, fabrics intended for this end-use should meet all of the requirements listed in

5.1 Fabrics intended for this end-use should meet all of the requirements listed in Table 1 of this specification.

5.2 It is recognized that for purposes of fashion or aesthetics the ultimate consumer of articles made from these fabrics may find acceptable fabrics that do not conform to all of the requirements in It should be recognized that fabrics can be produced with an almost infinite number of combination of construction variables (for example, type of fibers, percentage of fibers, yarn twist, yarn number, warp and pick count, chemical and mechanical finishes). Additionally, fashion or aesthetics dictate that the ultimate consumer may find acceptable articles made from fabrics that do not conform to all of the requirements in Table 1. Therefore, one or more of the requirements listed in Table 1 may be modified upon agreement between the purchaser and the supplier.

5.2.1 In such cases, any references to the specification shall specify that: “This fabric meets ASTM Specification D4113 except for the following characteristic(s).”

5.3 Where no prepurchase agreement has been reached between the purchaser and the supplier, and in case of controversy, the requirements listed in Table 1 are intended to be used as a guide only. As noted in 5.2, ultimate consumer demands dictate varying performance parameters for any particular style of fabric.

5.4 The significance and use of particular properties and methods are discussed in the appropriate sections of the specified methods.

6. Sampling

6.1 *Lot Sample*—As a lot sample for acceptance testing, take at random the number of rolls as directed in an applicable specification or other agreement between the purchaser and the supplier, such as an agreement to use MIL-STD-105D.

6.2 *Laboratory Sample*—From each roll or piece in the lot sample, cut two laboratory samples the full width of the fabric and at least 375 mm (15 in.) along the selvage.

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5.2.1 Hence, no single performance specification can possibly apply to all the various fabrics that could be utilized for this end-use.

5.3 The uses and significance of particular properties and test methods are discussed in the appropriate sections of the specified test methods.

6. Test Methods (see Note 1)

7.1)

6.1 *Breaking Force*— Determine the dry breaking force, in the standard atmosphere for testing textiles, as directed in Test Method D 5034, using a constant rate of traverse (CRT) tensile-testing machine with the speed of the pulling clamp at 300 ± 10 mm (12 ± 0.5 in.)/min.

NOTE 2—If preferred, the use of a constant rate of extension (CRE) tensile-testing machine is permitted. The crosshead speed should be as agreed upon between the purchaser and the supplier. There may be no overall correlation between the results obtained with the CRT machine and with the CRE

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

⁴ Available from UFAC Central, Box 2436, High Point, NC 27261.

⁵ Available from UFAC Central, Box 2436, High Point, NC 27261.

⁵ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.