



Standard Performance Specification for Woven, Knitted, or Flocked Bedspread Fabrics¹

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1. Scope

1.1 This performance specification covers the performance requirements for woven, knitted, or flocked fabrics to be used in the manufacturing of bedspreads.

1.2 These requirements apply to 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

- D123 Terminology Relating to Textiles
- D1424 Test Method for Tearing Strength of Fabrics by Falling-Pendulum (Elmendorf-Type) Apparatus
- D2261 Test Method for Tearing Strength of Fabrics by the Tongue (Single Rip) Procedure (Constant-Rate-of-Extension Tensile Testing Machine)
- D2724 Test Methods for Bonded, Fused, and Laminated Apparel Fabrics
- D3786 Test Method for Bursting Strength of Textile Fabrics—Diaphragm Bursting Strength Tester Method
- D3787 Test Method for Bursting Strength of Textiles—Constant-Rate-of-Traverse (CRT) Ball Burst Test
- D5034 Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)

2.2 AATCC Methods:³

- 8 Colorfastness to Crocking: AATCC Crockmeter Method
- 16 Colorfastness to Light

- 23 Colorfastness to Burnt Gas Fumes
- 61 Colorfastness to Laundering, Home and Commercial: Accelerated
- 96 Dimensional Changes in Laundering of Woven and Knitted Textiles Except Wool
- 116 Colorfastness to Crocking: Rotary Vertical Crockmeter Method
- 124 Appearance of Fabrics After Repeated Home Launderings
- 132 Colorfastness to Drycleaning
- 135 Dimensional Changes in Automatic Home Laundering of Woven or Knit Fabrics
- 172 Colorfastness to Non-Chlorine Bleach in Home Laundering
- 188 Colorfastness to Sodium Hypochlorite Bleach in Home Laundering
- Evaluation Procedure 1 Gray Scale for Color Change
- Evaluation Procedure 2 Gray Scale for Staining
- Evaluation Procedure 8 AATCC 9–Step Chromatic Transference Scale

NOTE 1—Reference to test methods in this 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 *bedspread*—a type of bedcovering that is placed over the blankets and sheets for appearance and warmth.

3.2 For definitions of textile terms used in this specification, refer to the individual ASTM and AATCC test methods and to Terminology D123.

4. Significance and Use

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

4.2 It should be recognized that fabrics can be produced with an almost infinite number 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.

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

TABLE 1 Specification Requirements

NOTE 1—Class for colorfastness and DP rating is based on a numerical scale of 5 for negligible or no color change, color transfer, or wrinkle to 1 for very severe color change, color transfer, or wrinkle. The numerical rating in Table 1 or a higher numerical rating is acceptable.

Characteristic	Requirements		Section
	Woven	Knit	
Breaking strength force (load)	25 lbf (111 N) min	...	5.1
Bursting strength	...	35 psi (241 kPa) min	5.2
Tear strength	1.5 lbf (6.7 N) min		5.3
Dimensional change: Laundering and dry cleaning (each direction):			5.4.1–5.4.2
Tailored type	±3.5 % max	±5.0 % max	5.4.2
Throw type	±5.0 % max	±5.0 % max	
			5.5.2.1
Fabric appearance (durable press)	SA3.5 min	SA 3.5 min	
Retention of hand, character, and appearance	No significant change	No significant change	5.6
Durability of back coating	No significant changes	No significant change	5.7
Colorfastness to:			
Laundering:			5.8.1
Shade change	Grade 4 min ^A	Grade 4 min ^A	
Staining	Grade 3 min ^B	Grade 3 min ^B	
Bleaching			5.8.2
Sodium hypochlorite	Grade 4 min ^A	Grade 4 min ^A	
Non-chlorine	Grade 4 min ^A	Grade 4 min ^A	
Drycleaning:			5.8.3
Shade change	Grade 4 min ^A	Grade 4 min ^A	
Burnt gas fumes (two cycles)			
Shade change			5.8.4
Original	Grade 4 min ^A	Grade 4 min ^A	
After one laundering or one dry cleaning	Grade 4 min ^A	Grade 4 min ^A	
Crocking:			5.8.5
Dry	Grade 4 min ^C	Grade 4 min ^C	
Wet	Grade 3 min ^C	Grade 3 min ^C	
Light (20 AATCC standard fading units)	Step- 4 min ^A	Step- 4 min ^A	5.8.6
Flammability	Pass	Pass	5.9

^A AATCC Gray Scale for Color Change.

^B AATCC Gray Scale for Staining.

^C AATCC Chromatic Transference Scale.

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

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

5. Test Methods

5.1 *Breaking Force (Woven Fabrics Only)*—Determine the dry breaking strength (load), as directed in the grab test procedure of Test Methods **D5034** using a constant-rate-of-extension (CRE) tensile grab machine.

NOTE 2—If preferred, a constant-rate-of-traverse (CRT) tensile testing machine may be used. There may be no overall correlation between the results obtained with the CRT machine and with the CRE machine. Consequently, these two breaking load testers cannot be used interchangeably. In case of controversy, the CRE method shall prevail.

5.2 *Bursting Strength (knit fabrics only)*—Determine the bursting strength of knit fabrics in accordance with Test Method **D3786** using an approved type of diaphragm bursting tester or as directed in **D3787** using an approved constant-rate-of-traverse (CRT) machine equipped with a bursting attachment.

NOTE 3—Care should be taken to subtract the tare diaphragm pressure from the gross pressure to obtain actual bursting strength of fabric when

using the diaphragm bursting tester. Calibrate the equipment according to the manufacturer's instruction before using. Since there is no overall correlation between the results obtained with the CRT machine equipped with a bursting attachment and the diaphragm bursting tester, these two bursting testers cannot be used interchangeably. In case of controversy, the CRT machine equipped with a bursting attachment method shall prevail.

NOTE 4—The precision of the ball burst method using the CRT machine equipped with a bursting attachment and the precision of the diaphragm bursting tester method are being established by Subcommittee D13.59. The methods are accordingly not recommended for acceptance testing unless preceded by an interlaboratory check test in the laboratory of the purchaser and the laboratory of the seller using randomized replicate specimens of the material to be evaluated.

5.3 *Tearing Strength (woven fabrics only)*—Determine tear strength as directed in Test Method **D2261**.

NOTE 5—If preferred, use of Test Methods **D1424** and **D2261** is permitted with existing requirements as given in this specification. There may be no overall correlation between the results obtained with the tongue tear machine and with the Elmendorf machine. Consequently, these two testers cannot be used interchangeably. However, in case of controversy, Method **D2261** shall prevail.

5.4 Dimensional Change:

5.4.1 *Laundering*—Determine the dimensional change after 5 launderings as directed in Test (I) (II A) of AATCC Method 135 .

NOTE 6—Launderable fabrics are expected normally to be dry-cleanable, except where all or part of the fabric is not dry-cleanable and

is labeled “Do Not Dry-clean.” “Dry-clean Only” goods are not to be laundered.

NOTE 7—Nondurable-press items can be hand pressed as directed in 7.4.4 of AATCC 96 or flat-bed pressed as directed in 7.3.6 of AATCC 96 after tumble drying to eliminate wrinkles before measuring.

5.4.2 *Drycleaning*—Determine the dimensional change after three dry cleanings as directed in 10.1 to 10.7 of Test Methods **D2724 (Note 6)**.

5.5 *Fabric Appearance:*

5.5.1 Determine the appearance of durable-press fabric after five launderings and dryings as directed in Test (I) (II A) of AATCC Method 124 .

5.5.2 For nondurable-press fabrics, launder as in **5.4.1** and determine fabric smoothness after pressing as directed in 7.4.4 of AATCC 96 or flat-bed pressing as directed in 7.3.6 of AATCC 96.

5.5.2.1 The fabric smoothness (durable-press rating) of such fabrics shall have decreased no more than 0.5 smoothness appearance rating from that of the fabric before it was laundered.

5.6 *Retention of Hand, Character, and Appearance*—Fabric tested as directed in **5.4.1** and **5.4.2** shall not exhibit any significant changes in hand, character, or appearance.

5.7 *Durability of Back Coating*—A fabric shall exhibit no evidence of cracking or peeling of back coating when subjected to tests in accordance with **5.4.1** and **5.4.2**.

5.8 *Colorfastness:*

5.8.1 *Laundering*—Determine the colorfastness to laundering as directed in Test II A of AATCC Method 61 (**Note 6**).

5.8.1.1 Use Multifiber Test Fabric and evaluate only cotton, polyester, and the textile fiber(s) composition of the fabric.

5.8.2 Determine the colorfastness to bleaching as directed in the applicable procedures of AATCC Test Methods 172 and 188.

5.8.3 *Drycleaning*—Determine the colorfastness of dry-cleaning as directed in AATCC Method 132 (**Note 6**).

5.8.4 *Burnt Gas Fumes*—Determine the colorfastness to burnt gas fumes after 2 cycles on the original fabric as directed in AATCC Method 23. Repeat the test for 2 cycles on another specimen after 1 laundering or 1 drycleaning.

NOTE 8—Laundering conditions shall be the same as those in **5.4.1** and dry-cleaning conditions shall be the same as those in **5.4.2**.

5.8.5 *Crocking*—Determine the colorfastness to wet and dry crocking as directed in AATCC Method 8 for solid shades and AATCC Method 116 for prints.

5.8.6 *Light*—Determine colorfastness to light as directed in AATCC Method 16.

NOTE 9—There are distinct differences in spectral distribution between the various types of machines listed in AATCC Method 16, with no overall correlations between them. Consequently, these machines cannot be used interchangeably. In case of controversy, results obtained with the Water-Cooled Xenon-Arc machine listed in Option E shall prevail.

NOTE 10—Standardization of the xenon-arc lamp to 60 AATCC FU can be done by using three L4 Blue Wool Lightfastness Standards.

5.9 *Flammability*—The flammability requirements shall be as regulated by applicable Government mandatory standards.

NOTE 11—The technical need for an ASTM test method for determining the flammability of the types of fabrics addressed by this specification has been referred to Subcommittee D13.52 on Flammability and will be incorporated here should a test method become available.

6. Keywords

6.1 bedspread; durability; durable press

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