



Designation: ~~D4116-95a~~ Designation: D 4116 - 01 (Reapproved 2008)

Standard Performance Specification for Women's and Girls' Knitted and Woven Corset-Girdle-Combination Fabrics¹

This standard is issued under the fixed designation D 4116; 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 and knitted fabrics composed of any textile fiber or mixture of fibers used in corsets, girdles or a combination of the same.

1.2 This performance specification is not applicable to knitted or woven corset-girdle-combination fabrics, to knitted lace fabrics, and to fabrics used for interlinings.

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

1.4 *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

~~D1424 Test Method for Tear Resistance of Woven Fabrics by Falling-Pendulum (Elmendorf) Apparatus~~² 4124 Test Methods for Separation of Asphalt into Four Fractions

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

D 2262 Test Method for Tearing Strength of Woven Fabrics by the Tongue (Single Rip) Method (Constant-Rate-of-Traverse Tensile Testing Machine)²

~~D2905 Practice for Statements on Number of Specimens for Textiles~~² 2262 Test Method for Tearing Strength of Woven Fabrics by the Tongue (Single Rip) Method (Constant-Rate-of-Traverse Tensile Testing Machine)

D 3786 Test Method for Hydraulic Bursting Strength of Knitted Goods and Nonwoven Fabrics—Diaphragm Bursting Strength Tester Method— Test Method for Bursting Strength of Textile Fabrics ~~Diaphragm Bursting Strength Tester Method~~²⁰⁰⁸

D 3787 Test Method for Bursting Strength of Knitted Goods—Constant-Rate-of-Traverse—Textiles Constant-Rate-of-Traverse (CRT) Ball Burst Test

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

15 Colorfastness to Perspiration

16 Colorfastness to Light

23 Colorfastness to Burnt Gas Fumes

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

116 Colorfastness to Crocking: Rotary Vertical Crockmeter Method

124 Appearance of Durable Press Fabrics after Repeated Home Launderings

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

¹ This specification is under the jurisdiction of ASTM Committee D-13 on Textiles and is the direct responsibility of Subcommittee D13.56 on Performance Standards for Textile Fabrics.

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² This performance 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 Aug. 1, 2008. Published October 2008. Originally approved in 1982. Last previous edition approved in 2001 as D 4116 - 01.

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>.

172 Colorfastness to Non-Chlorine Bleach in Home Laundering

188 Colorfastness to Chlorine Bleach in Home Laundering

Evaluation Procedure No. 1 Gray Scale for Color Change

Evaluation Procedure No. 2 Gray Scale for Staining

Evaluation Procedure No. 3 AATCC Chromatic Transference Scale.

2.3 *Federal Standard*:⁴

16 CFR, Chapter II-Consumer Product Safety Commission Subchapter D-Flammable Fabrics Act Regulations

2.4 *Military Standard*:⁵

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

NOTE 1—Reference to test methods in this standard 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 the individual ASTM and AATCC methods and to Terminology D 123.

TABLE 1 Specification Requirements

NOTE 1—Class in colorfastness is based on a numerical scale of 5 for negligible color change or color transfer to 1 for very severe color change or color transfer.

Characteristic	Requirements		Section
	Knit	Woven	
Breaking strength (load)(CRT) ^A	...	301 N (70 lbf), min	7.1
Bursting strength (ball burst) ^A	222 N (50 lbf), min	...	7.2
Tongue-tear strength ^A	...	13 N (3 lbf), min	7.3
Yarn slippage	...	6 mm (¼ in.) separation @ 155 N (35 lbf), min	7.4
Dimensional change:			
Laundering			7.5.1
Length	5 % max	5 % max	
Width	5 % max	3 % max	
Colorfastness:			
Burnt gas fumes—1 cycle:			7.6.1
Shade change, original fabric	Class 4 ^B , min	Class 4 ^B , min	
Shade change, after one laundering	Class 4 ^B , min	Class 4 ^B , min	
Laundering:			7.6.2
Shade change	Class 4 ^B , min	Class 4 ^B , min	
Staining	Class 3 ^C , min	Class 3 ^C , min	
Crocking:			7.6.3
Dry	Class 4 ^D , min	Class 4 ^D , min	
Wet	Class 3 ^D , min	Class 3 ^D , min	
Perspiration:			7.6.4
Shade change	Class 4 ^B , min	Class 4 ^D , min	
Staining	Class 3 ^C , min	Class 3 ^D , min	
Light (10 AATCC FU) ^A (xenon-arc)	Step 4 ^B , min	Step 4 ^C , min	7.6.5
Chlorine Bleach	Class 4 ^B , min	Class 4 ^B , min	7.6.6
Non-chlorine Bleach	Class 4 ^B , min	Class 4 ^B , min	7.6.7
Flammability	pass	pass	7.7

^A There is more than one method that can be used to measure breaking strength (load).

^B AATCC Gray Scale for Color Change.

^C AATCC Gray Scale for Staining.

^D AATCC Chromatic Transference Scale.

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

4. Specification Requirements

4.1 The properties of knitted and woven fabrics for women's and girls' corset-girdle-combinations shall conform to the specification requirements in Table 1.

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

⁴ Available from Superintendent of Documents, Government Printing Office, Washington, DC 20402.

⁵ Available from Superintendent of Documents, Government Printing Office, Washington, DC 20402.

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