Designation: ~~D4116 – 14~~ D4116 – 20

Standard Performance Specification for Women's and Girls' Knitted and Woven Corset-Girdle-Combination Fabrics[1]

This standard is issued under the fixed designation D4116; 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~~ safety, health, and ~~health~~environmental practices and determine the applicability of regulatory limitations prior to use.*

1.5 *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.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

D123 Terminology Relating to Textiles

D434 Test Method for Resistance to Slippage of Yarns in Woven Fabrics Using a Standard Seam (Withdrawn 2003)[3]

D2261 Test Method for Tearing Strength of Fabrics by the Tongue (Single Rip) Procedure (Constant-Rate-of-Extension Tensile Testing Machine)

D2262 Test Method for Tearing Strength of Woven Fabrics by the Tongue (Single Rip) Method (Constant-Rate-of-Traverse Tensile Testing Machine) (Withdrawn 1995)[3]

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)

D7022 Terminology Relating to Apparel

2.2 *AATCC Test Methods:*[4]

~~8~~TM8 Colorfastness to Crocking: Crockmeter Method

~~15~~TM15 Colorfastness to Perspiration

~~16.3~~TM16.3 Colorfastness to Light: Xenon-Arc

~~23~~TM23 Colorfastness to Burnt Gas Fumes

~~61~~TM61 Colorfastness to Laundering: Accelerated

~~116~~TM116 Colorfastness to Crocking: Rotary Vertical Crockmeter Method

~~135~~TM135 Dimensional Changes of Fabrics after Home Laundering

~~172~~TM172 Colorfastness to Powdered Non-Chlorine Bleach in Home Laundering

~~188~~TM188 Colorfastness to Sodium Hypochlorite Bleach in Home Laundering

[1] This performance specification is under the jurisdiction of ASTM Committee D13 on Textiles and is the direct responsibility of Subcommittee D13.61 on Apparel.
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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] The last approved version of this historical standard is referenced on www.astm.org.

[4] 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. 1~~EP1 Gray Scale for Color Change
~~Evaluation Procedure No. 2~~EP2 Gray Scale for Staining
~~Evaluation Procedure No. 8~~ EP8 AATCC 9-Step Chromatic Transference Scale
M11 A Glossary of AATCC Standard Terminology

2.3 *Federal Standard:*[5]
16 CFR 1610 ~~CFR,~~ Chapter II-Consumer Product Safety Commission Subchapter D-Flammable Fabrics Act Regulations

2.4 *Military Standard:*[6]
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 For terminology related to Apparel, see Terminology D7022.

3.2 For definitions of all other textile terms, see Terminology D123.

3.3 For terms relating to chemical or colorfastness testing, refer to specific AATCC test methods, or the glossary of AATCC Standard Terminology, or both.

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

TABLE 1 Specification Requirements

NOTE 1—Grade 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	Grade 4[B], min	Grade 4[B], min	
Shade change, after one laundering	Grade 4[B], min	Grade 4[B], min	
Laundering:[E]			7.6.2
Shade change	Grade 4[B], min	Grade 4[B], min	
Staining	Grade 3[C], min	Grade 3[C], min	
Crocking:[E]			7.6.3
Dry	Grade 4[D], min	Grade 4[D], min	
Wet	Grade 3[D], min	Grade 3[D], min	
Perspiration:[E]			7.6.4
Shade change	Grade 4[B], min	Grade 4[B], min	
Staining	Grade 3[C], min	Grade 3[C], min	
~~Light (10 AATCC Fading Units)[A] (xenon-arc)~~	~~Grade 4[B], min~~	~~Grade 4[B], min~~	~~7.6.5~~
Light (10 AFUs)[A] (xenon-arc)	Grade 4[B], min	Grade 4[B], min	7.6.5
Sodium Hypochlorite Bleach	Grade 4[B], min	Grade 4[B], min	7.6.6
Powdered Non-chlorine Bleach	Grade 4[B], min	Grade 4[B], min	7.6.7
~~*Flammability*~~	~~pass~~	~~pass~~	~~7.7~~
Flammability	Class 1	Class 1	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 9-Step Chromatic Transference Scale.
[E] See Note 8.

[5] Available from Superintendent of Documents, Government Printing Office, Washington, DC 20402.
[6] Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.