



Designation: D3996 – 13

Standard Performance Specification for Knit Swimwear Fabrics¹

This standard is issued under the fixed designation D3996; 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 circular and warp knitted fabrics for use in knit swimwear, composed of any textile fiber or mixture of textile fibers.

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

1.3 The following precautionary statement pertains only to the test methods portion, Section 7, of this specification. *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

D2905 Practice for Statements on Number of Specimens for Textiles (Withdrawn 2008)³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-Traversal (CRT) Ball Burst Test

D7022 Terminology Relating to Apparel³

2.2 AATCC Methods:⁴

8 Colorfastness to Crocking: Crockmeter Method

15 Colorfastness to Perspiration

16.3 Colorfastness to Light

23 Colorfastness to Burnt Gas Fumes

61 Colorfastness to Laundering: Accelerated

106 Colorfastness to Water: Sea

107 Colorfastness to Water

116 Colorfastness to Crocking: Rotary Vertical Crockmeter Method

129 Colorfastness to Ozone in the Atmosphere Under High Humidities

135 Dimensional Changes of Fabrics After Home Laundering

Evaluation Procedure No. 1 Gray Scale for Color Change

Evaluation Procedure No. 2 Gray Scale for Staining

Evaluation Procedure No. 8 AATCC 9-Step Chromatic Transference Scale

162 Colorfastness to Water Chlorinated Pool

172 Colorfastness to Powdered Non-Chlorine Bleach in Home Laundering

188 Colorfastness to Sodium Hypochlorite Bleach in Home Laundering

2.3 Federal Standard:⁵

16 CFR 1610 Standard for Flammability of Clothing Textiles

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 For all terminology related to D13.61, Apparel, see Terminology D7022.

3.1.1 The following terms are relevant to this standard: swimwear.

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 methods.

4. Specification Requirements

4.1 The properties of fabrics for knitted swimwear shall conform to the specification requirements in Table 1.

⁵ Available from Superintendent of Documents, Government Printing Office, Washington, DC 20407.

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.

Current edition approved July 1, 2013. Published August 2013. Originally approved in 1981. Last previous edition approved in 2008 as D3996 – 02(2008). DOI: 10.1520/D3996-13.

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>.