



Designation: D7268 – 23

Standard Performance Specification for Seamless Knit Garments Including Intimates and Swimwear¹

This standard is issued under the fixed designation D7268; 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 reappraisal. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reappraisal.

1. Scope

1.1 This specification covers the evaluation of specific performance characteristics of importance in seamless knit garments, including camisoles, panties, slips, girdles and swimwear.

1.2 The following safety hazards caveat pertains only to the test methods described in this performance 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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.3 *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 (See Note 1)

2.1 ASTM Standards:²

D123 Terminology Relating to Textiles

D629 Test Methods for Quantitative Analysis of Textiles

D2594 Test Method for Stretch Properties of Knitted Fabrics Having Low Power

D2905 Practice for Statements on Number of Specimens for Textiles (Withdrawn 2008)³

D3136 Terminology Relating to Care Labeling for Apparel, Textile, Home Furnishing, and Leather Products (Withdrawn 2023)³

D3786 Test Method for Bursting Strength of Textile Fabrics—Diaphragm Bursting Strength Tester Method

D6797 Test Method for Bursting Strength of Fabrics

Constant-Rate-of-Extension (CRE) Ball Burst Test

D7022 Terminology Relating to Apparel (Withdrawn 2022)³

2.2 AATCC Test Methods:⁴

TM8 Colorfastness to Crocking: AATCC Crockmeter Method

TM15 Colorfastness to Perspiration

TM16.3 Colorfastness to Light: Xenon Arc

TM20 Fiber Analysis: Qualitative

TM20 A Fiber Analysis: Quantitative

TM61 Colorfastness to Laundering: Accelerated

TM106 Colorfastness to Water: Sea

TM107 Colorfastness to Water

TM116 Colorfastness to Crocking: Rotary Vertical Crockmeter

TM132 Colorfastness to Drycleaning

TM150 Dimensional Changes of Garments after Home Laundering

TM158 Dimensional Changes on Drycleaning in Perchloroethylene: Machine

TM162 Colorfastness to Water: Chlorinated Pool

TM172 Colorfastness to Non-Chlorine Bleach in Home Laundering

TM179 Skewness Change in Fabric and Garment Twist Resulting from Automatic Home Laundering

TM188 Colorfastness to Sodium Hypochlorite Bleach in Home Laundering

EP1 Gray Scale for Color Change

EP2 Gray Scale for Staining

EP8 AATCC 9-Step Chromatic Transference Scale

M11 A Glossary for AATCC Standard Terminology

AATCC-ASTM TS-001 Quick Methods for Colorfastness to Chlorine and Non-Chlorine Bleach

NOTE 1—AATCC-ASTM TS-001 contains quick test methods for color change from chlorine and non-chlorine bleach. The methods have not been validated for verified. In case of dispute use AATCC 172 and/or 188 for bleach test results.

2.3 Federal Standards:⁵

16 CFR 1610 Flammable Fabrics Act

NOTE 2—Reference to test methods in this specification give only the

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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, P.O. Box 12215, Research Triangle Park, NC 27709.

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

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 Apparel, see Terminology [D7022](#).

3.2 The following terms are relevant to this standard: camisole, girdle, intimates, panties, seamless knit garment, slip, swimwear.

3.3 For definitions of all other textile terms see Terminology [D123](#).

4. Significance and Use

4.1 Upon mutual agreement between the purchaser and the supplier, seamless knit garments intended for this end use should meet all of the requirements listed in [Table 1](#) of this specification.

4.2 It is recognized that, for purposes of fashion or aesthetics, the ultimate consumer of articles made from these fabrics may find acceptable products that do not conform to all of the requirements listed in [Table 1](#). Therefore, one or more of the requirements in [Table 1](#) may be modified by mutual agreement between the purchaser and the supplier.

4.2.1 In such cases, any references to the specifications should specify that: “This product meets ASTM specifications XXXX except for the following characteristic(s).”

4.3 Where no pre-purchase agreement has been reached between the purchaser and supplier, and in case of controversy, the requirements listed in [Table 1](#) are intended to be used as a guide only. As noted in [4.2](#), ultimate consumer demands dictate varying performance parameters for a particular product.

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

5. Sampling

5.1 *Acceptance Testing Lot*—Unless agreed otherwise, consider as a lot for acceptance testing all material of a single item as a single shipment.

5.2 *Lot Samples and Laboratory Samples*—For acceptance testing, take lot samples and laboratory samples as directed by each of the applicable test methods.

5.3 *Specimens*—Take the number of specimens directed in each of the applicable test methods. Perform the tests on the product as it reaches the consumer. Any “partially finished” or “post-finish” fabrics should be processed in accordance with the fabric manufacturer’s instructions.

5.3.1 If the applicable test method does not specify the number of specimens, use the procedures in Practice [D2905](#) to determine the number of specimens per laboratory sample unit.

5.3.2 Use a reliable estimate of the variability of individual observations on similar materials in the user’s laboratory, a 95% probability level, and an allowable difference of 5% of units and the average for the laboratory sampling unit.

6. Specification Requirements

6.1 The properties of seamless knit garments shall conform to the specification requirements of [Table 1](#).

7. Test Methods (See [Note 1](#))

7.1 *Bursting Strength*—Determine bursting strength of knit fabrics as directed in Test Method [D3786](#) (preferred method) or

TABLE 1 Specification Requirements

Characteristic	Requirements	Section
Bursting Strength	<5 oz 30 lb/in ²	
Colorfastness		
Laundering ^A	Color Change Staining	4.0 Min 3.0 Min
Drycleaning	Color change Staining	4.0 Min 3.0 Min
Crocking ^A	Dry Wet	4.0 Min 3.0 Min
Light Swimwear 40 AFU's	Color change	Grade 3.5 Min
Intimates 20 AFU's	Color change	Grade 3.5 Min
Perspiration ^A	Color change Staining	4.5 Min 3.5 Min
Water ^A	Color change Staining	4.5 Min 3.5 Min
Sea Water (Swimwear only) ^A	Color change	4.0 Min
Chlorinated Pool Water (Swimwear only)	Color change	4.0 Min
Bleach		
Chlorine		Grade 4 Min
Non-Chlorine		Grade 4 Min
Dimensional Change		
Laundering — Each direction		±5.0 % Max
Drycleaning- Each direction		±3.0 % Max
Stretch		Record Actual
Flammability		Class 1
Garment Twist		5 % max
Fiber Content	Blends	±3.0 % Max
	100 % Fibers	±0.0 % Max

^A See [Note 4](#).