



Designation: **D4035—13 D4035 – 14**

## Standard Performance Specification for Knitted Necktie and Scarf Fabrics<sup>1</sup>

This standard is issued under the fixed designation D4035; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reappraisal.

### 1. Scope

1.1 This performance specification covers knitted necktie and scarf fabrics composed of any textile fiber or mixture of textile fibers.

1.2 These requirements apply to 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:*<sup>2</sup>

[D123 Terminology Relating to Textiles](#)

[D2594 Test Method for Stretch Properties of Knitted Fabrics Having Low Power](#)

[D2724 Test Methods for Bonded, Fused, and Laminated Apparel Fabrics](#)

[D2905 Practice for Statements on Number of Specimens for Textiles \(Withdrawn 2008\)](#)<sup>3</sup>

[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 Apparel](#)<sup>3</sup>

2.2 *AATCC Methods:*<sup>4</sup>

[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](#)

[96 Dimensional Changes in Commercial Laundering of Woven and Knitted Fabrics Except Wool](#)

[116 Colorfastness to Crocking: Rotary Vertical Crockmeter Method](#)

[124 Smoothness Appearance of Fabrics After Repeated Home Laundering](#)

[132 Colorfastness to Drycleaning](#)

[135 Dimensional Changes of Fabrics](#)

[172 Colorfastness to Powdered 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](#)

2.3 *Federal Standard:*<sup>5</sup>

[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

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<sup>2</sup> 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.

<sup>3</sup> The last approved version of this historical standard is referenced on [www.astm.org](#).

<sup>4</sup> Available from American Association of Textile Chemists and Colorists (AATCC), P.O. Box 12215, Research Triangle Park, NC 27709, [http://www.aatcc.org](#).

<sup>5</sup> Available from Superintendent of Documents, Government Printing Office, Washington, DC 20402.

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: necktie, scarf, *in apparel*.

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 neckties and scarfs shall conform to the specification requirements in **Table 1**.

### 5. Significance and Use

5.1 Upon mutual agreement between the purchaser and the seller, fabrics intended for this end use should meet all of the requirements listed in **Table 1** of this specification.

**TABLE 1 Specification Requirements**

NOTE 1—Class Grade for colorfastness and DP<sub>SA</sub> 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
Bursting strength (load) (ball burst)	50 lbf (222 N)	7.1
Dimensional change:		
Pressing and finishing	2 % max	7.2.1
After five launderings	5 % max	7.2.2
After three dry cleanings	3 % max	7.2.3
Growth	3 % max	7.2.4
Colorfastness:		
Burnt gas fumes, 2 cycles:		7.3.1
Shade change, original fabric	Class 4 <sup>A</sup> min	
Shade change after one laundering or one dry cleaning	Class 4 <sup>A</sup> min	
Shade change, original fabric	Grade 4 <sup>A</sup> min	
Shade change after one laundering or one dry cleaning	Grade 4 <sup>A</sup> min	
Sodium Hypochlorite Bleach	Class 4 <sup>A</sup> min	7.3.7
Sodium Hypochlorite Bleach	Grade 4 <sup>A</sup> min	7.3.7
Powdered Non-Chlorine Bleach	Class 4 <sup>A</sup> min	7.3.8
Powdered Non-Chlorine Bleach	Grade 4 <sup>A</sup> min	7.3.8
Laundering: <sup>E</sup>		7.3.2
Shade change	Class 4 <sup>A</sup> min	
Staining	Class 3 <sup>B</sup> min	
Shade change	Grade 4 <sup>A</sup> min	
Staining	Grade 3 <sup>B</sup> min	
Drycleaning:		7.3.3
Shade change	Class 4 <sup>A</sup> min	
Shade change	Grade 4 <sup>A</sup> min	
Crocking: <sup>E</sup>		7.3.4
Dry	Class 4 <sup>C</sup> min	
Wet	Class 3 <sup>C</sup> min	
Dry	Grade 4 <sup>C</sup> min	
Wet	Grade 3 <sup>C</sup> min	
Perspiration		7.3.5
Perspiration: <sup>E</sup>		7.3.5
Shade change	Class 4 <sup>A</sup> min	
Staining	Class 3 <sup>B</sup> min	
Shade change	Grade 4 <sup>A</sup> min	
Staining	Grade 3 <sup>B</sup> min	
Light (40 AATCC FU) (xenon-arc)	Step 4 <sup>A</sup> min	7.3.6
Light (40 AATCC Fading Units) (xenon-arc)	Grade 4 <sup>A</sup> min	7.3.6
Fabric appearance (see 7.4.1.1)	DP 3.5 <sup>D</sup> min	7.4
Fabric appearance (see 7.4.1.1)	SA 3.5 <sup>D</sup> min	7.4
Flammability	Class 1 or Class 2	7.5

<sup>A</sup> AATCC Gray Scale for Color Change.

<sup>B</sup> AATCC Gray Scale for Staining.

<sup>C</sup> AATGGAATCC 9-Step Chromatic Transference Scale.

<sup>D</sup> For durable press fabrics only.

<sup>E</sup> See **Note 7**.