



Designation: D 3778 – 95a

Standard Performance Specification for Women's and Girls' Drycleanable Woven Dress Coat Fabrics¹

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1. Scope

1.1 This performance specification covers women's and girls' woven drycleanable dress coat outer fabrics composed of any textile fiber or mixture of textile fibers.

1.2 This performance specification is not applicable to woven fabrics used for linings and interlinings, rainwear garments, and all-purpose, water repellent garments, nor is this performance specification applicable to bonded or laminated fabrics.

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

1.4 When a fabric requires special treatment, specific methods will be described as they are developed for that material, and such special tests will have precedence over these general requirements.

1.5 *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:

- D 123 Terminology Relating to Textiles²
- D 434 Test Method for Resistance to Slippage of Yarns in Woven Fabrics Using a Standard Seam²
- D 1424 Test Method for Tear Resistance of Woven Fabrics by Falling-Pendulum (Elmendorf) Apparatus²
- D 2261 Test Method for Tearing Strength of Woven Fabrics by the Tongue (Single Rip) Method (Constant-Rate-of-Extension Tensile Testing Machine)²
- D 2262 Test Method for Tearing Strength of Woven Fabrics by the Tongue (Single Rip) Method (Constant-Rate-of-Traverse Tensile Testing Machine)²
- D 2724 Test Methods for Bonded, Fused, and Laminated Apparel Fabrics²

D 2905 Practice for Statements on Number of Specimens for Textiles²

D 5034 Test Method for Breaking Force and Elongation of Textile Fabrics (Grab Test)³

2.2 AATCC Test Methods:⁴

- 8 Colorfastness to Crocking: AATCC Crockmeter Method
 - 15 Colorfastness to Perspiration
 - 16 Colorfastness to Light
 - 23 Colorfastness to Burnt Gas Fumes
 - 96 Dimensional Changes in Laundering of Woven and Knitted Textiles Except Wool
 - 116 Colorfastness to Crocking: Rotary Vertical Crockmeter Method
 - 124 Appearance of Durable Press Fabrics After Repeated Home Launderings
 - 132 Colorfastness to Dry Cleaning
 - 135 Dimensional Changes in Automatic Home Laundering of Durable Press Woven or Knit Fabrics
 - Evaluation Procedure 1 Gray Scale for Color Change
 - Evaluation Procedure 2 Gray Scale for Staining
 - Evaluation Procedure 3 AATCC Chromatic Transference Scale
- #### 2.3 Federal Standard:⁵
- 16 CFR 1610 Standard for Flammability of Clothing Textiles
 - 16 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 Definitions:

3.1.1 *coat, n*—an outer garment which covers at least the

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² *Annual Book of ASTM Standards*, Vol 07.01.

³ *Annual Book of ASTM Standards*, Vol 07.02.

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

⁵ Available from Superintendent of Documents, U.S. 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.



TABLE 1 Specification Requirements

NOTE 1—Class in colorfastness and DP requirements is based on a numerical scale of 5 for negligible or no color change, color transfer, or fabric wrinkle to 1 for severe color change, color transfer, or fabric wrinkle.

Characteristic	Requirements	Section
Breaking strength (load) (CRT)	133 N (30 lbf) min	7.1
Napped fabrics:		
Length	111 N (25 lbf) min	
Width	89 N (20 lbf) min	
Yarn slippage		7.2
Cross-dyed fabrics	3.2 mm (1/8 in.) max separation at 89 N (20 lbf)	
Solid shades	6.3 mm (1/4 in.) max separation at 89 mm (20 lbf)	
Tear strength	13 N (3 lbf), min	7.3
Dimensional Change:		
Pressing	2 % max shrinkage and 0 % growth	7.4.1
Drycleaning	2 % max shrinkage and 0 % growth	7.4.2
Colorfastness:		
Burnt gas fumes—2 cycles		
Shade change, original fabric	Class 4 ^A min	7.5.1
Shade change, after one drycleaning	Class 4 ^A min	
Drycleaning:		
Shade change	Class 4 ^A min	7.5.2
Crocking:		
Dry	Class 4 ^B min	7.5.3
Wet	Class 3 ^B min	
Perspiration:		
Shade change	Class 4 ^A min	7.5.4
Staining	Class 3 ^C min	
Light (20 AATCC FU) (xenon arc)	Step 4 ^A min	7.5.5
Fabric appearance (see 7.6.1)		7.6
Flammability	Class 1 or Class 2	7.7

^A AATCC Gray Scale for Color Change.

^B AATCC Chromatic Transference Scale.

^C AATCC Gray Scale for Staining.

upper half of the body, has sleeves and a front opening, and is usually worn over another garment such as a shirt or dress.

3.1.2 For definitions of other textile terms used in this specification, refer to the individual ASTM and AATCC test methods and to Terminology D 123. Definitions found in a dictionary of common terms are suitable for terms used in this specification.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *pressing and finishing*—this term takes into account all of the industrial pressing and finishing treatments used in garment production.

NOTE 2—No standard method is available for reproducing on a laboratory level the results of industrial press or finish treatments, or both, used in the manufacture of woven outerwear garments⁷

4. Specification Requirements

4.1 The properties of fabrics for women's and girls' woven drycleanable dress coats shall conform to the specification requirements in Table 1.

5. Significance and Use

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

5.2 It is recognized that for purposes of fashion or aesthetics the ultimate consumer of articles made from these fabrics may find acceptable fabrics that do not conform to all of the

requirements in Table 1. Therefore, one or more of the requirements listed in Table 1 may be modified by mutual agreement between the purchaser and the supplier.

5.2.1 In such cases, any references to the specification shall specify that: This fabric meets ASTM Specification D 3778 except for the following characteristic(s).

5.3 Where no prepurchase agreement has been reached between the purchaser and the supplier, and in case of controversy, the requirements listed in Table 1 are intended to be used as a guide only. As noted in 5.2, ultimate consumer demands dictate varying performance parameters for any particular style of fabric.

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

6. Sampling

6.1 *Acceptance Testing Lot*—Unless there is prior agreement consider as a lot for acceptance testing all material of a single item received as a single shipment.

6.2 *Lot Sample*—As a lot sample for acceptance testing, take at random the number of rolls as directed in an applicable specification or other agreement between the purchaser and the supplier, such as an agreement to use MIL-STD-105D.

6.3 *Laboratory Sample*—From each roll or piece in the lot sample, cut two laboratory samples the full width of the fabric and at least 375 mm (15 in.) along the selvage.

6.4 *Test Specimens*—Take the number of specimens directed in each of the applicable test methods. Perform the tests on the fabric as it will reach the customer. Any “partially finished” or “post-finish” fabrics should be given the same

⁷ The development of a standard method has been referred to Subcommittee D13.59 on Fabric Test Methods, General.