INCH-POUND
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COMMERCIAL ITEM DESCRIPTION

CLOTH, TWILL OR PLAIN WEAVE, POLYESTER AND POLYESTER BLEND

The General Services Administration has authorized the use of the Commercial Item Description (CID) by all federal agencies.

1. SCOPE. This commercial item description covers the requirements for twill or plain weave polyester and polyester blend cloth.

2. CLASSIFICATION. This commercial item description covers the following classes as specified.

2.1 Classes.

Class 1 - Heavy weight, 4.3 ounces per square yard
Class 2 - Medium weight, 2.9 ounces per square yard
Class 3 - Light weight, 2.2 ounce per square yard

3. SALIENT CHARACTERISTICS.

3.1 General description. The Class 1 and 2 cloths shall be a two (2) up-one (1) down twill or a plain weave using stable or textured polyester yarns or using yarns spun from staple polyester and carded cotton or stable rayon. The Class 3 cloth shall be a two (2) up-one (1) down right hand twill weave using filament polyester yarns. For all other shuttleless looms the width measurement shall be made between the last warp yarns on each side excluding the protruding fringe(s).

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AMSC N/A FSC 8305

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The width of the cloth shall be as specified (see 7.5) and shall be the minimum acceptable width inclusive of the selvage when fly-shuttle or shuttleless looms with tuck-in selvage are used. For all other shuttleless looms the width measurement shall be made between the last warp yarns on each side excluding the protruding fringe(s). The color of the finished cloth shall be natural, bleached or dyed as specified in the contract or purchase order (see 7.5). When dyed cloth is specified, the use of dyes and compounds containing elementary sulfur compounds capable of oxidation to sulfuric acid shall not be used. The dyed cloth shall be "Free" of labile sulfur when tested as specified in 3.4.

3.2 Visual shade matching. The color and appearance of the cloth shall match the standard sample when tested as specified in 3.2.1.

3.2.1 Visual shade matching. The color and appearance of the finished cloth shall match the standard sample when viewed using the AATCC Evaluation Procedure 9, Option C (see 7.3), with sources simulating artificial daylight D75 illuminant with a color temperature of 7500K (±200) illuminant of 100 (±20) foot candles, and shall be a good match to the standard sample under incandescent A illuminant with a color temperature of 2856K (±200).

3.3 Physical characteristics and requirements. The finished cloth shall conform to the physical characteristics specified in Table I when tested in accordance with test methods in Table I.

TABLE I. Physical characteristics and test methods.

Characteristic	Requirement			Test method
	Class 1	Class 2	Class 3	
Fiber content (percent):				
Polyester	47 - 100	47 - 100	100	AATCC 20A (see 7.4)
Cotton	0 - 53	0 - 53	0	AATCC 20A (see 7.4)
Rayon	0 - 53	0 - 53	0	AATCC 20A (see 7.4)
Colorfastness (min.):				
Perspiration (acid and alkaline)	3-4	3-4	3-4	AATCC 15 1/
Dry Heat	3-4	3-4	3-4	AATCC 117 2/, 3/
Wet drycleaning	3-4	3-4	3-4	AATCC 132 3/
Crocking (wet and dry):				AATCC 8 4/
(light colors)	3.5	3.5	3.5	
(black or dark colors)	1	1	1	
Weight, oz./sq.yd. (min.)	4.3 5/	2.9	2.2	ASTM D3776/D3776M
Yarns per inch (min.)				ASTM D3775
Warp	73 5/	73	120	
Filling	46 5/	46	66	
Breaking strength, lbs. (min.)				ASTM D5034
Warp	72	58	100	
Filling	55	44	75	

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TABLE I. Physical characteristics and test methods. - Continued

Characteristic	Requirement			Test Method
	Class 1	Class 2	Class 3	
Dimensional stability (percent) (max.)				AATCC 158
Warp	3.0	3.0	3.0	
Filling	3.0	3.0	3.0	
Seam efficiency (percentage) (min.)	70	70	--	ASTM D1683 6/
Toxicity	3.6	3.6	3.6	5.5

1/ Rated using the AATCC Evaluation Procedure 1, Gray Scale for Color Change and AATCC Evaluation Procedure 2, Gray Scale for Staining.
2/ The test shall be performed at 325 (± 6)ºF.
3/ Rated using the AATCC Evaluation Procedure 1, Gray Scale for Color Change
4/ Rated using the AATCC Evaluation Procedure 8, AATCC 9-Step Chromatic Transference Scale.
5/ For 100 percent polyester cloth a 15 percent minus tolerance is permitted.
6/ The needle shall measure 0.044 inch (± 0.001) inch across the blade at the eye. The thread shall be polyester core; cotton, or polyester-covered in accordance with A-A-50199, Tex 36-45 for the needle and Tex 31-35 for the looper, or spun polyester in accordance with A-A-59989, size 30; 2 or 3 4 ply for the needle and size 40; 2 or 3 ply for the looper. (Not applicable for 100 percent polyester cloth).

3.4 Presence of labile sulfur. In the determination of labile sulfur in textile materials with lead acetate, two (2) 1.50 gram (± 0.01) gram samples from each material submitted for evaluation shall be tested. Each of the two (2) samples shall be cut into very small pieces and placed into separate test tubes. The samples shall be submersed in a stannous chloride solution that contains 100 grams of stannous chloride crystals ACS in 100 millimeters of hydrochloric acid ACS (35 percent concentration) and 50 milliliters of distilled water. A filter paper wet out with a 5.0 percent lead acetate solution shall be placed over the top of the test tube. The lead acetate solution contains 5.0 grams of lead acetate CP reagent grade and enough distilled water to make up a 100 milliliter solution; if the solution is not clear, add a few drops (one at a time) of glacial acetic acid until the solution is clear. The test tube containing the textile sample, stannous chloride and wet filter paper shall be heated over a low flame until the solution is boiling. The solution should not be heated for more than 15 seconds. A brown to black stain on the filter paper should be rated as follows:

Free - The filter paper shows no discoloration of staining of any kind.
Slight - The filter paper shows a light tan to light brown discoloration stain.
Moderate - The filter paper shows a dark brown discoloration stain.
Severe - The filter paper shows a black color stain.

The rating shall be recorded. The results shall be recorded as “pass” or “fail”.

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3.5 pH. The pH of the water extract of the finished cloth shall be no less than 5.0 nor more than 8.5 when tested in accordance with AATCC Test Method 81.

3.6 Toxicity. The finished cloth shall not present a health hazard and shall show compatibility with prolonged, direct skin contact when tested as specified in 5.5. Chemicals recognized by the Environmental Protection Agency (EPA) as human carcinogens shall not be used.

3.7 Length and put-up. For Government procurement only, unless otherwise specified (see 7.5), the cloth shall be furnished in continuous lengths of not less than 40 yards and shall be put-up full width on rolls.

3.8 Labels. Each roll of finished cloth shall be labeled or ticked for fiber content in accordance with the Rules and Regulations under the Textile Fiber Products Identification Act.

3.9 Workmanship. The finished cloth shall conform to the quality of product established by this document. The occurrence of defects shall not exceed the contractor's own quality assurance standards and the quality assurance standards defined by the technical data in the bid package.

4. REGULATORY REQUIREMENTS. Unless otherwise specified the offer/contractor is encouraged to use recovered materials to the maximum extent practicable.

5. PRODUCT CONFORMANCE PROVISIONS.

5.1 Product conformance. The finished cloth provided shall meet the salient characteristics of this Purchase Description, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and be the same product offered for sale in the commercial marketplace. The Government reserves the right to require proof of such conformance.

5.2 Market acceptance. This finished cloth must have been sold to the commercial market or the Government.

5.3 End item inspection procedures. Sampling for inspection shall be conducted in accordance with ASQ/ANSI Z1.4 - Sampling Procedures and Tables for Inspection by Attributes (see 7.2.4).

5.4 Visual examination. The finished cloth shall be examined for the defects listed in Table II as defined in ASTM D3990:

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TABLE II. Visual examination defects.

Cloth: Any spot, or stain more than 1-inch in its longest dimension; any hole, cut or tear; missing end or pick, thick or thin areas; width less than specified; overall uncleanliness; crease or hard crease; slubs, slugs or gout; shade bar, streaks or uneven dying.
Label: Label missing, incorrect, or illegible. Required information missing from the label.
Packaging: Not packaged in accordance with the contract or purchase order.

5.5 Toxicity test. When required (see 7.5, an acute dermal irritation study and a skin sensitization study shall be conducted. When the results of the studies indicate the material is not a sensitizer or irritant, a Repeat Insult Patch Test shall be performed in accordance with the Modified Draize Procedure (see 7.2.3). If the toxicity requirement (see 3.5) can be demonstrated with historical use data on the finishing treatments used, toxicity testing may not be required.

5.6 Acceptance criteria. Acceptance criteria shall be as specified in the contract or purchase order (see 7.5).

6. PACKAGING. Preservation, packing, and marking shall be as specified in the contract or purchase order (see 7.5).

7. NOTES.

7.1 Sources of Government documents.

7.1.1 Copies of Government documents are available online at https://quicksearch.dla.mil.

7.1.2 Rules and Regulations under the Textile Fiber Products Identification Act are available online at https://www.ftc.gov .

7.2 Sources for Non-Government documents.

7.2.1 AATCC test methods are available online at https://www.aatcc.org.

7.2.2 ASTM Standards are available online at https://www.astm.org.

7.2.3 Repeat Insult Patch Test: Modified Draize Procedure - Principles and Methods of Toxicology, A Wallace Hayes (editor).

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(Copies are available online from https://www.crcpress.com.)

7.2.4 ASQ/ANSI Z1.4 - Sampling Procedures and Tables for Inspection of Attributes are available online at https://asq.org.

7.3 Visual shade matching. In 2019, Option A of AATCC Evaluation Procedure 9, Visual Assessment of Color Difference of Textiles was changed to Option C. NOTE: In case of confusion, the viewing geometry should be "The specimen plane and illumination source shall be parallel to each other and aligned so that the light flux is incident at the center of the specimen plane, which is set at a 35 (± 5º) angle relative to the horizontal. The observer shall view the specimens at a 90º angle, relative to the plane of the specimens".

7.4 Certificate of compliance. The contracting activity may select to accept a certificate of compliance for stated requirement.

7.5 Intended use. This cloth is intended to be used as pocketing, waistband and lining for dress and service clothing items.

7.6 Ordering data. The contract or purchase order should specify the following:

a. Title, number, and date of this Commercial Item Description
b. Class of cloth required (see 2.1)
c. Width of cloth required (see 3.1)
d. Color of cloth required (see 3.1)
e. Toxicity requirement (3.6 and 5.5)
f. Length put-up required (see 3.7)
g. Labeling information (see 3.8)
h. Product conformance provisions (see 5.1)
i. Acceptance criterial provisions (see 5.6)
j. Packaging requirement (see 6.)

7.7 Key words.
Clothing
Lining
Pocketing
Waistband

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MILITARY INTERESTS:

CIVIL COORDINATING AGENCY ACTIVITY
GSA-FAS

Custodians:
Army - GL
Navy -NU
Air Force - 11

Preparing Activity:
DLA-CT

Review activities:
Army - MD
Navy - MC

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