

INCH-POUND

A-A-52110A

January 9, 2008

SUPERSEDING

A-A-52110

August 23, 1991

COMMERCIAL ITEM DESCRIPTION

CLOTH, PLAIN WEAVE, POLYESTER/COTTON for POCKETS (WATER REPELLENT)

The General Services Administration has authorized the use of this commercial item description as a replacement for MIL-C-44157 for all federal agencies.

1. SCOPE. This commercial item description covers water repellent polyester/cotton plain weave cloth intended for use as pockets in clothing items.
2. CLASSIFICATION. The cloth shall be in the following Classes:

Class 1 - Camouflage Green 483

Class 2 - Foliage Green 504

3. SALIENT CHARACTERISTICS. The yarns for the warp shall be 100 percent textured continuous multifilament polyester and the filling yarns shall be spun singles made from a blend of 30 to 60 percent carded or combed cotton with the remaining percentage polyester. The cloth shall be plain weave. The width shall be as specified (see 7.2) and shall be the minimum acceptable width inclusive of the selvage when fly shuttle looms or shuttleless looms with tuck-in selvages are used. For all other shuttles looms the width measurement shall be made between the last warp yarn on each side excluding the protruding fringe(s). The cloth shall be given a fluorocarbon water repellent treatment and shall conform to the hydrostatic pressure and spray rating requirements. The color and appearance of the cloth shall match the standard sample when viewed using the AATCC Evaluation Procedure 9, Option A, under filtered tungsten lamps that simulate artificial daylight D75 illuminant with a color temperature of 7500K (± 200) illumination of 100 foot candles (± 20), and shall be a good match to the standard sample under horizon lamplight at 2856 K (± 200).

Comments, suggestions, or questions on this document should be addressed to: Defense Supply Center Philadelphia, Clothing and Textiles Directorate, Attn: DSCP Standardization Team, 700 Robbins Avenue, Philadelphia, PA 19111-5096. Since contact information can change, you may want to verify the currency of the address information using Acquisition Streamlining and Standardization Information System (ASSIST) online database <http://assist.daps.dla.mil/>

AMSC N/A

FSC 8305

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The spectral reflectance values for the color specified shall conform to the requirements specified in Table I when tested as specified in 3.1.

TABLE I. Spectral reflectance requirements Reflectance values (percent)

Wavelength Nanometers (nm)	Class 1 Camouflage Green 483		Class 2 Foliage Green 504	
	<u>Min.</u>	<u>Max.</u>	<u>Min.</u>	<u>Max.</u>
600	3	10	8	18
620	3	10	8	18
640	3	10	8	20
660	3	12	10	26
680	3	14	10	26
700	4	28	12	28
720	5	40	16	30
740	10	52	16	30
760	18	56	18	32
780	20	56	18	34
800	24	58	20	36
820	30	60	22	38
840	38	60	24	40
860	40	60	26	42

3.1 Physical requirements. The finished cloth shall conform to the requirements listed in Table II.

TABLE II. Physical requirements

Characteristic	Requirement	Test method
Fiber Identification Polyester Cotton	Paragraph 3.0 Paragraph 3.0	ASTM D 276 or AATCC 20 ASTM D 276 or AATCC 20
Fiber Content , Yarn (%) Filling Warp	30-60% Cotton 100% polyester	ASTM D629 or AATCC 20A ASTM D629 or AATCC 20A
Colorfastness to: Laundering (after 3 cycles) Crocking Perspiration (acid & alkaline)	3-4 min. 3.5 min. 3-4 min.	AATCC-61 Test 3A <u>1/ 2/</u> AATCC 8 <u>3/</u> AATCC 15 <u>1/ 2/</u>

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TABLE II. Physical requirements - Continued

Characteristic	Requirement	Test method
Spectral reflectance: Class 1 and 2	Table I	3.1.1
Weight, oz./sq. yd. (min.)	5.0	ASTM D 3776
Breaking Strength, lbs. (min.) Warp Filling	250 100	ASTM D 5034 ASTM D 5034
Yarns per inch, (min.) Warp Filling	105 68	ASTM D 3775 ASTM D 3775
Tearing Strength, lbs. (min.) Warp Filling	7.5 2.5	ASTM D 1424 ASTM D 1424
Water repellent treatment Spray rating: Initial After 3 launderings, Hydrostatic resistance (cm.)(min) Initial After 3 launderings	100,100,90 80,80,70 30 30	AATCC 22 AATCC 96, Test VIc, <u>4/</u> AATCC 22 AATCC 127, AATCC 96, Test VIc, <u>4/</u> AATCC 127
Dimensional stability,%, (max) Warp Filling	3.0 2.0	AATCC 96, VIc <u>5/</u> AATCC 96, VIc <u>5/</u>

1/ AATCC Evaluation Procedure 1, Gray Scale for Color Change

2/ AATCC Evaluation Procedure 2, Gray Scale for Staining

3/ AATCC Evaluation Procedure 8, AATCC 9-Step Chromatic Transference Scale

4/ An additional laundry procedure shall be performed without the use of any detergent

5/ The dimensional stability shall be performed after 1 cycle. The cloth shall not be pressed after tumble drying prior to measurement.

3.1.1 Spectral reflectance test. Spectral reflectance data shall be obtained from 600 to 860 nanometers (nm) on a spectrophotometer relative to the barium sulfate standard, the preferred white standard. Other white reference materials may be used provided they are calibrated to absolute white, e.g. magnesium oxide or vitrolite tiles. The spectral band width shall be less than 26 nm at 860 nm. Reflectance measurements shall be made by either the monochromatic or polychromatic mode of operation. When the polychromatic mode of operation is used, the spectrophotometer shall operate with the specimen diffusely illuminated with the full emission of a continuous source that simulates either CIE Source A or CIE Source D65. Measurements shall be taken on a minimum of two (2) different areas and the data averaged. The measured areas should be at least 6 inches away from the selvage. The specimen shall be viewed at an angle no greater than 10° from

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normal, with the specular component included. Photometric accuracy of the spectrophotometer shall be within 1 percent and wavelength accuracy within 2 nm. The diameter for standard aperture size used in the color measurement device shall be 1.0 to 1.25 inches. Any color having spectral reflectance values falling outside the limits at four or more of the wavelengths specified shall be considered a test failure.

3.2 Labile Sulfur. Dyes and compounds containing elementary sulfur capable of oxidation to sulfuric acid shall not be used.

3.3 Toxicity. The finished cloth shall not present a health hazard and shall show compatibility with prolonged, direct skin contact when tested as specified in 3.3.1. Chemicals recognized by the Environmental Protection Agency (EPA) as human carcinogens shall not be used.

3.3.1 Toxicity test. When required (see 7.2), an acute dermal irritation study and a skin sensitization study shall be conducted on laboratory animals. When the results of the studies indicate the cloth is not a sensitizer or irritant, a Repeat Insult Patch Test shall be performed in accordance with the Modified Draize Procedure. (See 7.1.5) If the toxicity requirement (see 3.3) can be demonstrated with historical use data, toxicity testing may not be required (see 7.2).

3.4 Length and put-up. For Government procurements only, unless otherwise specified (see 7.2), the cloth shall be furnished in continuous lengths, each not less than 40 yards. Each length shall be put-up full width on a roll as specified in 6.1.

4. REGULATORY REQUIREMENTS

4.1 Regulatory Requirements. The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with paragraph 23.403 of the Federal acquisition Regulation (FAR).

5. PRODUCT CONFORMANCE

5.1 Product Conformance. The products provided shall meet the salient characteristics of this Commercial Item 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.

6. PACKAGING

6.1 Packaging. Preservation, packing, and marking shall be as specified in the contract or order.

7. NOTES.

7.1 Source of Documents. Copies of Military and Federal documents are available from:

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7.1.1 Copies of government documents are available online at <http://assist.daps.dla.mil/quicksearch/> or from the Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

7.1.2 AATCC standards Copies of documents are available on line at www.aatcc.org or from the American Association of Textile Chemists and Colorists, P.O. Box 12215, Research Triangle Park, NC 27709-2215.

7.1.3 ASTM Standards are available online at www.astm.org or from ASTM INTERNATIONAL, 100 Barr harbor Drive, West Conshohocken, PA 19428-2959.

7.1.4 Federal Acquisition Regulations are available online at <http://acquisition.gov/far/index.html> or by contacting the Superintendent of Documents at 202-512-1800.

7.1.5 Repeat Insult Patch Test - Modified Draize Procedure – Principles and Methods of Toxicology -(fourth edition) A Wallace Hayes (editor), pp 1057 – 1060, 2001.

(Copies are available online at <http://www.taylorandfrancis.co.uk/> or from Taylor and Francis, 325 Chestnut Street, Philadelphia PA 19106.)

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

- a. CID document, title and revision.
- b. Width of cloth required (see 3.0).
- c. Color required (see 3.0).
- d. Put-up required (see 3.4)
- e. When toxicity testing is required. (see 3.3)
- f. Product conformance provisions. (see 5.1)
- g. Packaging requirements (see 6.1).

7.3 Key words.

Clothing

MILITARY INTERESTS:

Custodian:
Army – GL
Navy – NU
Air Force – 11

Review Activity:
Army - MD
Navy – MC

CIVIL AGENCY COORDINATING ACTIVITY:
GSA – FSS

Preparing Activity:
DLA - CT

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NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using ASSIST Online database at <http://assist.daps.dla.mil/>.