

INCH-POUND

A-A-55292

February 2, 1996

## COMMERCIAL ITEM DESCRIPTION

## CLOTH, POPLIN, POLYESTER AND COTTON

The General Services Administration has authorized the use of this commercial item description as a replacement for MIL-C-21881 for all Federal agencies.

1. SCOPE. This commercial item description covers the requirements for two types and two classes of poplin, polyester and cotton cloth. Type I cloths are intended for use in shirts worn by Naval personnel. Type II cloths are intended for use by all services in swimming and general utility trunks for both male and female personnel.

2. CLASSIFICATION. The polyester and cotton fabrics shall be of the following types and classes.

Type I - 4.1 to 4.6 oz.

Class 1 - Khaki 3729

Class 2 - White 3013

Type II - 4.7 to 5.3 oz. (Water Repellent Treated)

Class 1 - Khaki 3726

Class 2 - Green 3452

3. SALIENT CHARACTERISTICS.

3.1 General description. The weave for both the type I and type II cloth shall be plain. The cloth shall conform to the requirements in Table I.

3.2 Yarns. The yarns shall be a blend of polyester and combed cotton drawn and spun into singles yarn for both the warp and the filling. The finished cloth shall contain 65 percent ( $\pm 5$  percent) polyester fiber and not less than 30 percent cotton based on the dry weight of the desized specimens.

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any data which may improve this document should be sent to: Defense Personnel Support Center, Clothing and Textiles Directorate, Attn: DPSC-FNS, 2800 South 20th Street, Philadelphia, PA 19145-5099.

AMSC N/A

FSC 8305

DISTRIBUTION STATEMENT A. *Approved for public release; distribution is unlimited.*

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3.3 Width. The width of the finished cloth shall be as specified in the contract or purchase order and shall be the minimum acceptable width inclusive of selvages when fly-shuttle looms or shuttleless looms when tucked-in selvages are used. For all other shuttleless looms, the width measurement shall be made between the last warp yarn on each side excluding the protruding fringe.

3.4 Color. The finished cloth, when dyed as specified shall match the standard sample when viewed under filtered tungsten lamps that approximate artificial daylight and that have a correlated color temperature of 7500 K ( $\pm 200$  degrees), with illumination of 100 foot candles ( $\pm 20$  feet), and be a good match to the standard sample under incandescent lamplight at 2300 K ( $\pm 200$  degrees). Type I, class 1 shall be Khaki, Shade No. 3729. Type I, class 2 shall be White, Shade No. 3013, shall be fully bleached, and may be supplemented with florescent optical brightener. Type II, class 1 shall be Khaki, Shade No. 3726. Type II, class 2 shall be Green, Shade No. 3452.

3.5 Finish. The cloth shall be desized, scoured, heat set, and dyed or bleached to meet the requirements. The type II cloths shall be given an approved durable water repellent treatment to meet the requirements.

3.6 Face identification. The face side of the cloth shall be identified by stamping on that side with the word "FACE" at each end of the roll.

TABLE I. Physical requirements

Characteristic	<u>Requirements</u>		Test Method
	Type I	Type II	
Weight (oz./sq. yd.)			
Minimum	4.1	4.7	ASTM-D-3776, Option C
Maximum	4.6	5.3	
Yarns per inch (min.)			
Warp	102	105	ASTM-D-3775
Filling	50	55	ASTM-D-3775
Breaking strength (lbs., min.)			
Warp	120	150	ASTM-D-5034
Filling	50	70	ASTM-D-5034
Colorfastness to:			
Light (after 20 standard fading hours)	equal to standard or "good"		AATCC 16 <u>1</u> /
Laundrying (after 3 <sup>3</sup> cycles)(Type I only)	equal to standard or "good"		AATCC 61 <u>2</u> / <u>3</u> / method 2A
Laundrying & bleaching (Type II only)	equal to standard or "good"		AATCC 3 <u>3</u> /
Perspiration	equal to standard or "good"		AATCC 15
Crocking (wet and dry)(min.)	equal to standard or "good"		AATCC 8
Nonfibrous materials(percent, max.) (Type II only)	-----	2.0	FED-STD-191, TM 2611
pH	5.0-8.0	5.0-8.0	FED-STD-191, TM 2811

**A-A-55292**TABLE I. Physical requirements

Characteristic	<u>Requirements</u>		Test Method
	Type I	Type II	
Dimensional stability (max.)			
Warp	2 percent	3 percent	AATCC 96 <u>4/</u>
Filling	2 percent	3 percent	AATCC 96 <u>4/</u>
Seam efficiency	Not less than 80 percent		FED-STD-191, TM 5110
Water resistance (Type II only)			
Spray rating		90, 90, 80	AATCC 22
Dynamic absorption (max.)			AATCC 70
Initial	25 percent		FED-STD-191, TM 5500
After 3 launderings	35 percent		FED-STD-191, TM 5518

1/ The calibration of the fadeometer and the definition of the American Association of Textile Chemists and Colorists (AATCC) Fading Units shall be in accordance with Test Method AATCC 16. Using the formula below, 16.5 to 23.5 AFU's are acceptable as 20 SFH's.

$$\text{AATCC Fading Units} = \frac{(\Delta E^*) (20)}{1.7 \pm 0.3}$$

Where ( $\Delta E^*$ ) is the color difference  
in CIELAB units of color difference.

2/ The specimens must be dried after each of the 3 laundering cycles.

3/ Only the stain on the cotton and polyester fibers of the color transfer cloth shall be evaluated.

4/ Cotton laundering procedure shall be followed.

5/ The needle size shall be 0.036 ( $\pm 0.001$ ) inch ( $0.91 \pm 0.025$  mm) across the blade eye. The thread shall be polyester covered conforming to A-A-50199, Ticket No. 50, 3 ply for the needle and Ticket No. 70, 2 ply for the looper. As an alternate, a cotton thread conforming to Type I of A-A-52094 may be used with Ticket No. 60, 3 ply for the needle and Ticket No. 70, 3 ply for the looper. The use of polyester covered polyester-core thread is not allowed.

3.7 Labels. A commercial-type label is acceptable, provided that an additional printed cloth label containing the contractor's name, contract number, size and National Stock Number (NSN) is caught on the stitching of the commercial label. The commercial label shall include fiber and laundering information.

3.8 Label/tag. Each item shall be individually bar-coded with a paper tag for personal clothing items. The paper tag shall be standard bleached sulfate having a basis weight of 100 pounds. The paper used for the tags shall have a smooth finish to accept thermal transfer and direct printing. The tags shall have a hole and shall be attached to each item by a fastener, clearly legible and readable by a scanner. The bar coding element shall be a 13 digit national stock number (NSN). The bar code type shall be a medium to high code density and shall be located so that it is completely visible on the item when it is folded and/or packaged as specified and so that it causes no damage to the item.

3.9 Toxic chemicals, hazardous substances and ozone depleting chemicals (ODCs). The use of toxic chemicals, hazardous substances, or ODCs shall be avoided, whenever feasible. The

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SD-14 provides a readily accessible list of toxic chemicals, hazardous substances, and ODCs. (Note: The list of toxic chemicals and hazardous substances changes. Any updates to the list will be replaced first in the Environmental Protection Agency [EPA] Title III List of Lists [EPA 560/4-92-011].) The desired performance requirements should be specified rather than the specific chemical or substance. If applicable, a toxic chemical, hazardous substance, or ODC must be specified.

4. 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. QUALITY ASSURANCE PROVISIONS

5.1 Certification. The contractor shall certify and maintain substantiating evidence that the product offered meets the salient characteristics of this commercial item description and conforms to the producer's own drawings, specifications, standards, and quality assurance practices. The Government reserves the right to require proof of such conformance prior to the first delivery and thereafter as may be otherwise provided for under the provisions of the contract.

5.2 Market acceptance criteria. The item offered, or a generic equivalent, must have been sold to the commercial market or to the Government for at least two years.

5.3 Acceptance criteria. Acceptance criteria shall be as specified in the contract or purchase order.

5.4 Visual examination. The cloth shall be examined for the defects listed below.

5.5 Defects. Any hole, cut, or tear; color not as specified; any shaded areas, spot or stains; any crease or wrinkle; baggy, ridgy, or wavy cloth; width less than specified; excessive neppiness. Only knots and slubs which exceed the limits shown on Sears Fabric Defect Scale "D" for slubs and "C" for knots shall be scored. The bar code shall not be omitted and shall be readable by scanner; human-readable interpretation (HRI) omitted or illegible; bar code not visible on folded, packaged item; bar code causes damage to the item; or any items not packaged in accordance with the contract or purchase order.

6. PACKAGING

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

7. NOTES

7.1 Source of Government documents. Copies of military and Federal documents are available from:

Standardization Documents Order Desk  
Bldg. 4D  
700 Robbins Avenue  
Philadelphia, PA 19111-5094

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### **Rules and Regulations under The Textile Fiber Products Identification Act**

(Copies are available from the Federal Trade Commission, Washington, DC 20580-0001.)

#### Source of non-Government documents

##### **ASTM Test Methods**

(Applications for copies should be addressed to American Society For Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.)

##### **AATCC Test Methods**

(Applications for copies should be addressed to American Association of Textile Chemists and Colorists (AATCC), P.O. Box 12215, Triangle Park, NC 27709-2215.)

#### **7.3 Source of supply.**

Color chips can be ordered through the following:

GSA Federal Supply Service Bureau  
Specification Section  
470 E.I.'Enfant Plaza, S.W.  
Suite 1800  
Washington, DC 20407

#### **MILITARY INTERESTS:**

##### Custodians:

##### ACTIVITY:

Army - GL

Navy - NU

Air Force - 99

##### **CIVIL AGENCY COORDINATING**

GSA - FSS

##### **PREPARING ACTIVITY:**

DLA - CT

##### Review Activities:

Army - MD

Air Force - 32, 45, 82

Navy - MC

Coast Guard - CG

Project 8305-0484