INCH-POUND

A-A-50531
14 JUNE 1990

COMMERCIAL ITEM DESCRIPTION

CLOTH, POPLIN; POLYESTER AND COTTON (WATER REPELLENT)

The General Services Administration has authorized the use of this Commercial Item Description (CID) in preference to Military Specification MIL-C-29363.

1. SALIENT CHARACTERISTICS

1.1 General. The cloth shall be a blend of 65 ± 3 percent polyester and 35 ± 3 percent carded and combed cotton. The blended yarns shall be spun into a 2 ply yarn for the warp and a single yarn for the filling. The cloth is a plain weave, of a specified width (see 4.2) that includes the selvage. The color of the cloth shall be as specified (see 4.2) and shall match the standard shade when viewed under lighting conditions described in FED-STD-191 test method 9010. The cloth shall be given an approved fluorocarbon type water repellent treatment.

1.2 Physical requirements. The finished cloth shall conform to the requirements listed in Table I.

TABLE I
Physical requirements

Characteristic	Requirement	Test method 1/
Fiber content (percent)		
Polyester	65 ± 3	2100 4/
Cotton	35 ± 3	2100 4/

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to the Commanding General (PSE-C), Marine Corps Research, Development, and Acquisition Command, Washington, DC 20380, by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC-N/A FSC 8305

DISTRIBUTION STATEMENT A. Approval for public release; distribution is unlimited.

TABLE I

Physical requirements Cont'd

Characteristic	Requirement	Test method 1/
Yarn ply		
Warp	2 ply	Visual 2/
Filling	Singles	Visual 2/
Weight, oz/sq yd	5.5 - 6.8	ASTM D 3776 3/
Yarns per inch (min)		
Warp	110	ASTM D 3775 3/
Filling	68	ASTM D 3775 3/
Weave	Plain	Visual 2/
Air permeability (max)	4.0	ASTM D 737.75 3/
Breaking strength, lbs. (min)		
Warp	185	ASTM D 1682 3/
Filling	70	ASTM D 1682 3/
Tearing strength, lbs. (min)		
Warp	5.0	ASTM D 1424 3/
Filling	2.0	ASTM D 1424 3/
Dimensional stability, percent (max)		
Warp	2.0	5550 4/
Filling	2.0	5550 4/
Labile sulphur	Equal to standard or "slight"	2020 4/
Colorfastness to:	Equal to standard or:	
Laundering (after 3 cycles)	Good	5610 4/ 5/
Perspiration	Good	5680 4/
Crocking (min) 5/	2.5	5651 and AATCC TM 8-1985 4/ 8/
Wet-drycleaning	Good	5622 4/
Light (after 40 standard fading hours)	Good	5660 4/
pH	5.0 - 8.5	2811 4/

TABLE I Cont'd

Characteristics	Requirements	Test methods
Spray rating		
Initial	100,100,90	5526 4/
After 1 dry cleaning	70, 70,70	5508 and 5526 4/
Dynamic absorption, percent (max)		
Initial	18	5500 4/
After 3 laundering	18	5556 and 5500 4/ 7/
Hydrostatic pressure, cm (min)		
Initial	35	5514 4/
After 3 launderings (cotton method)	35	5556 and 5514 4/ 7/
After 1 dry cleaning	32	5508 and 5514 4/
Resistance to Organic Liquid (min)		
Initial	N-Tetradecane	AATCC 118 8/
After 3 launderings (cotton method)	N-Tetradecane	5556 and 7/ AATCC 118 8/
Water repellent 9/		

1/ The test methods indicated have been found acceptable to determine if the cloth meets the stated requirements. If the Government requires proof that the cloth meets the stated requirements, the test method indicated shall be used.

2/ One determination shall be made from each sammple unit and the results reported as "pass" or "fail".

3/ Refers to American Society for Testing of Materials (ASTM)

4/ Refers to FED-STD-191 Textile Test Methods

5/ For the color transfer cloth evaluation, only the stain on the cotton fibers of the color transfer cloth shall be evaluated.

6/ AATCC Chromatic Transference Scale Rating

7/ Specimens shall be subjected to 3 complete cycles (wash and dry) prior to determination of hydrostatic height, dynamic absorption and resistance to organic liquid after laundering.

TABLE I Cont'd

Characteristics	Requirements	Test methods

8/ Refers to American Association of Textile Chemists and Colorists (AATCC)

9/ The contractor shall report the water repellents used and certify that no other materials has been added. Only those chemical treatments already approved and so listed in the invitation for bid or request for proposal shall be considered acceptable for the related procurement.

1.3 Put Up. The cloth shall be furnished in continuous lengths of not less than 50 yards.

2. QUALITY ASSURANCE

2.1 Certification. The contractor shall certify and maintain substantiating evidence that the product offered meets the salient characteristics of this CID and that the product 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 first delivery and thereafter as may be otherwise provided for under the provisions of the contract.

2.2 Quality conformance inspection. The cloth inspection shall be performed in accordance with the provisions set forth in MIL-STD-105, except where otherwise indicated herein.

2.2.1 Examination of the end item. Examination of the end item shall be in accordance with 2.2.1.1 through 2.2.2.

2.2.1.1 Yard by yard examination. Each roll in the sample shall be examined on the face side only. When the total yardage in the roll does not exceed 100 yards, the entire yardage in the roll shall be examined. When the total yardage in the toll exceeds 100 yards, only 100 yards shall be examined. All defects as defined in Section I of FED-STD- 4, which are clearly noticeable at normal inspection distance (3 feet) shall be scored and assigned demerit points as listed in 2.2.1.1.1 except that only those slubs and knots which exceed the maximum limits shown on Sears Fabric Defect Scales E for slubs and C for knots shall be scored. No linear yard (increments of 1 yard on the measuring device of the inspection machine) from any one roll within the sample shall be penalized more than 4 points. The sample size shall be 20 rolls selected from 20 containers. The lot shall be unacceptable if the points per 100 square yards of the total yardage examined exceeds 25.0

points. The lot shall be unacceptable if the points per 100 square yards of two or more individual rolls exceeds the 38.0 points. If no individual roll exceeds 38.0 points per 100 square yards, the lot shall be acceptable with respect to this characteristic. If one roll exceeds 38.0 points per 100 square yards, a second sample of 20 rolls shall be examined only for individual roll quality examination. The lot shall be unacceptable if one or more rolls in the second sample exceeds 38.0 points per 100 square yards. Point computation for lot quality and individual roll quality shall be as follows:

$$\frac{\text{Total points scored in sample} \times 3600}{\text{Contracted width of cloth (inches)} \times \text{total yards inspected}} = \text{Points per 100 square yards}$$

2.2.1.1.1 Demerit points. Demerit points shall be assigned as follows:

For defects 3 inches or less in any dimension	- one point
For defects exceeding 3 inches, but not exceeding 6 inches in any dimension	- two points
For defects exceeding 6 inches, but not exceeding 9 inches in any dimension	- three points
For defects exceeding 9 inches in any dimension	- four points

The following defects, when present, shall be scored four points for each yard in which they occur:

Baggy, ridgy or wavy cloth.
Width less than specified.
Poor dye penetration, mottled, streaky or cloudy.
Overall uncleanness.
Excessive nappiness.
Shade defects - shaded side to side, side to center, or end to end.

2.2.2 Examination for shade and finish. Each roll in the lot shall be examined visually for the shade match (see 4.2). A roll shall be unacceptable if it fails to meet the requirements for shade match. The sample unit shall be a 4- inch by 20-inch swatch of the cloth. The sample unit shall be drawn from each roll in the lot.

2.3 Testing of the end item. The methods of testing specified in

Table I shall be followed. All test reports shall contain the individual values utilized in expressing the final result. The sample unit shall be 1/2 yard, full width of the cloth prior to application of the water- repellent treatment for determinations of the nonfibrous materials content and fiber content, and 5 continuous yards full width of the finished cloth for all other physical and chemical tests. The lot size shall be expressed in units of 1 yard each. The lot shall be unacceptable if one or more units fail to meet any test requirements specified. The sample size shall be in accordance with the following:

Lot size (yards)	Sample size (units)
800 or less	2
801 up to and including 22,000	3
22,001 and over	5

2.3.1 Fiber content. The general procedure of method 2100 shall be followed and the fiber content percentage shall be calculated as follows:

$$\frac{\text{Weight of dry residual fiber} \times 100}{\text{Weight of dry desized specimen}} = \text{percent polyester}$$

100 - percent polyester = percent cotton

Two specimens shall be tested from each sample unit and the average percent cotton of the two specimen shall be reported to the nearest 1.0 percent.

3. PACKAGING, PACKING AND MARKING

3.1 Preservation, packaging and packing.
Preservation, packaging and packing shall be as specified in the contract or purchase order.

3.2 Marking. The unit package, intermediate and outer container and the palletized load, as applicable, shall be marked in accordance with MIL-STD-129.

3.3 Palletization. When specified, the packed cloth shall be palletized on a 4-way entry pallet in accordance with load type 1A of MIL-STD-147. Each prepared load shall be bonded in accordance means C, K, and L or O or P. Pallet patterns shall be in accordance with appendix of MIL-STD-147. The pallet shall be 4-way, Type IV, Class 1, size 2; or fabricated from wood group I, II, III, IV, Grade A of NN-P- 71, or 4-way, Style 1, Size A, Type I, Class 1 fabricated from wood groups of MIL-P-15011. Interlocking of loads shall be effected by reversing the pattern of each course.

If the container is of a size which does not conform to any of the patterns specified in MIL-STD-147, the pallet pattern used shall first be approved by the contracting officer.

4. NOTES

4.1 Intended use. The cloth is intended for use in the manufacturing of men's and women's all-weather coats.

4.2 Ordering data. Acquisition documents should specify the following:

a. Title, number, and date of this document.
b. Color of cloth required (see 1.1).
c. Width of cloth required (see 1.1)
d. Packaging and packing requirements (see 3.1).
e. When palletization is required (see 3.3).

4.3 Source of documents.

4.3.1 Source of government documents. Copies of military and federal documents are available from:

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

4.3.2 Source of nongovernment association documents. AATCC Test Method 118 and AATCC Chromatic Transference Scale Rating is available from:

American Association of Textile Chemists and Colorists (AATCC)
P. O. Box 12215
Research Triangle Park, NC 27709-2215

ASTM D 737, ASTM D 1424, ASTM D 1682, ASTM D 3775 and ASTM D 3776 are available from:

American Society for Testing and Materials (ASTM)
1916 Race Street
Philadelphia, PA 19103

4.4 Dye Combinations. The suggested, but not mandatory, dye combinations are as follows:

Army Black 385

Sodyevat black 4GS Vat blue 74
Vat blue 43
Disperse blue 79
Disperse red 179
Disperse orange 30

Preparing Activity
Navy - MC
Project No. 8305-0317

Custodian:
Navy - MC
Army - GL

Review activity:
DLA - CT

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1 The preparing activity must complete blocks 1, 2, 3, and 8 In block 1, both the document number and revision letter should be given

2 The submitter of this form must complete blocks 4, 5, 6, and 7

3 The preparing activity must provide a reply within 30 days from receipt of the form

NOTE. This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements

I. RECOMMEND A CHANGE:	1 DOCUMENT NUMBER A-A-50051	2 DOCUMENT DATE (YYMMDD) 14 JUNE 1990

3 DOCUMENT TITLE

COMMERCIAL ITEM DESCRIPTION: CLOTH, POPLIN; POLYESTER AND COTTON (WATER REPELLENT)

4 NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible Attach extra sheets as needed)

5. REASON FOR RECOMMENDATION

6. SUBMITTER		
a. NAME (Last, First, Middle Initial)	b. ORGANIZATION	
c. ADDRESS (Include Zip Code)	d. TELEPHONE (Include Area Code) (1) Commercial (2) AUTOVON (If applicable)	7. DATE SUBMITTED (YYMMDD)

8 PREPARING ACTIVITY		
a NAME Commanding General, Marine Corps Reasearch, Development and Acquisition Command, (PSE-C),	b TELEPHONE (Include Area Code) (1) Commercial (202) 696-1186/87/88	(2) AUTOVON 226-1186/87/88
c ADDRESS (Include Zip Code) Washington, DC 20380-0001	IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT Defense Quality and Standardization Office 5203 Leesburg Pike Suite 1403 Falls Church VA 22041-3466 Telephone (703) 756-2340 AUTOVON 289 2340	

DD Form 1426, OCT 89 *Previous editions are obsolete* 198/290