

INCH-POUND

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 in preference to Military Specification MIL-C-44157.

Abstract. This commercial item description covers water repellent polyester/cotton cloth intended for use as pockets in the Extended Cold Weather Clothing System.

1. SALIENT CHARACTERISTICS

1.1 General description. The yarns for the warp shall be 100 percent textured continuous multifilament polyester and 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 a plain weave. The width shall be as specified (see 4.1) and shall be the minimum acceptable width inclusive of the selvage when fly shuttle looms or shuttleless looms with tuck-in salvages 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(s). The cloth shall be given an approved fluorocarbon type water repellent treatment (see 4.2) and shall conform to the hydrostatic pressure and spray rating requirements. Unless otherwise specified (see 4.1), the color of the finished cloth shall be Camouflage Green 483, and shall match the standard sample, for shade and appearance, when viewed under filtered tungsten lamps that approximate artificial daylight and that have a correlated color temperature of $7500 \pm 200\text{K}$, with illumination of 100 ± 20 foot candles, and shall be a good match to the standard sample under incandescent lamplight at $2300 \pm 200\text{K}$.

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

Beneficial comments, recommendations, additions, deletions, clarifications, etc., and any other data which may improve this document should be sent to: Commander, U.S. Army Natick Research, Development, and Engineering Center, ATTN: SIRNC-IRT, Natick, MA 01760-5019.

AMSC N/A

FSC 8305

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

A-A-52110

TABLE I. Physical requirements

Characteristic	Requirement	Test Method <u>1/</u>
Material:		
Polyester	-	1600
Cotton	-	1200
Filling yarn fiber content, percent cotton	30 to 60	2535
Colorfastness to:		
Laundering (after 3 cycles)	Good	5610 <u>2/</u>
Perspiration	Good	5680
Crocking	3.5 <u>3/</u>	5651
Labile sulfur content	Slight	2020
Weight, oz./sq.yd. (min)	5.0	5041
Yarns per inch (min):		
Warp	105	5050
Filling	68	5050
Breaking strength, lbs. (min):		
Warp	250	ASTM D-1534
Filling	100	ASTM D-1534
Tearing strength, lbs. (min):		
Warp	7.5	ASTM D-1424
Filling	2.5	ASTM D-1424
Water repellency: <u>4/</u>		
Hydrostatic pressure (cm):		
Initial	30	5514
After 3 launderings	30	5552, 5514 <u>5/</u>
Spray rating:		
Initial	100, 100, 90	5526
After 3 launderings	80, 80, 70	5552, 5526 <u>5/</u>
Shrinkage or elongation percent (max):		
Warp	3.0	5552
Filling	2.0	5552

1/ The test methods indicated, from FED-STD-191 Textile Test Methods, have been found acceptable to determine if the cloth meets the stated

A-A-52110

requirements. If the Government requires proof that the cloth meets the stated requirements, the test methods indicated shall be used.

- 2/ The specimens shall be dried after each of the three launderings.
- 3/ Refers to AATCC Chromatic Transference Scale rating.
- 4/ The contractor shall report the water repellent used.
- 5/ Specimens shall be subjected to three complete cycles (wash and dry) prior to determination of hydrostatic pressure and spray rating after laundering.

1.3 Length and put-up. For Government procurements only, unless otherwise specified (see 4.1), the cloth shall be furnished in continuous lengths each not less than 40 yards and shall be put-up full width on rolls as specified in 3.1.

2. QUALITY ASSURANCE

2.1 Certification. The contractor shall certify, and maintain substantiating evidence that the product offered meets the salient characteristics and requirements of this Commercial Item Description, 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 Visual examination. Lots of cloth shall be inspected in accordance with MIL-STD-105. The inspection level shall be II and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 6.5. The lot size shall be expressed in units of yards. The sample unit shall be one linear yard. The cloth shall be examined for the following defects: hole, cut, tear, missing end or pick, bias or bowed filling, thick or thin areas, permanent crease, slubs, slugs or gout, shade bar, streaks, spots, stains or poor dye penetration.

2.3 Length examination. During the visual examination, each roll in the sample shall be examined for length. Any length found to be less than the minimum specified or more than 2 yards less than the length marked on the roll ticket shall be considered a length defect. If two or more rolls in the sample are defective with respect to length or if the total of the actual lengths of rolls in the sample is less than the total of lengths marked on the roll tickets, the lot shall be rejected.

2.4 Regulatory requirements. The offeror/contractor is encouraged to use recovered material in accordance with Public Law 94-580 to the maximum extent practicable.

3. PACKAGING

A-A-52110

3.1 **Packaging.** The cloth shall be rolled on a convolute or spiral-wound chipboard tube. The tube shall have a smooth finish surface that will prevent the fibers of the chipboard from transferring to the cloth. Each roll of cloth, put-up as specified, shall be wrapped with 60-pound minimum basis weight kraft paper in such a way that the paper shall encircle the roll at least once with a minimum overlap of 3 inches, and the width of the paper shall be sufficient to fold over and protect the ends of the roll. Gummed paper tape, with a minimum width of 2-1/2 inches shall be applied to the overlap seam the full length of the roll and across each end. Alternatively, each roll of cloth shall be enclosed in a polyethylene film tube, and the tube secured at both ends by heat sealing or mechanical ties.

3.2 **Packing.** Each wrapped roll shall be enclosed in a close-fitting polyethylene film tube with a minimum thickness of 0.004 inches or each wrapped roll shall be enclosed in a bias-sewn tubing made from woven polypropylene cloth. The tube shall be secured by heat-sealing, by means of a mechanical tie, or by plastic ties with a lock-end. Alternately, a maximum of 325 pounds of rolls of kraft-wrapped cloth shall be packed in a snug-fitting double-walled fiberboard container known as a double cover, and shall consist of a body or joined liner and two covers. Corrugated fiberboard with a minimum bursting strength of 500 pounds shall be used. The container shall be strapped with metallic straps not less than 1/2 by 0.020 inch or non-metallic straps not less than 7/16 by 0.030 inch.

3.3 **Marking.** In addition to any special markings required by the contract or purchase order, rolls and shipping containers shall be marked in accordance with MIL-STD-129. Each roll shall have a piece ticket (identification tag) affixed with a 5-ply minimum cotton string or a plastic tag hanger. The tag shall have a reinforced eyelet and shall be legibly printed, using water insoluble ink, with the following information:

Procurement Agency	Contract or Purchase Order Number
National Stock Number	Finish or Greige Mill
Item Description	Roll Number
Contractor	Lot Number
Width	Piece Number
Fiber Content	Yardage

4. NOTES

4.1 **Acquisition requirements.** Acquisition documents must specify the following:

- a. Title, number, and date of this document.
- b. Width of cloth required (see 1.1).
- c. Color of cloth required, if other than specified (see 1.1).
- d. Length and put-up if other than specified (see 1.3).

4.2 **Approval of water repellent treatment.** Approval of the water repellent treatment for use under this document is the responsibility of the U.S.

A-A-52110

Army Natick Research, Development, and Engineering Center, Natick, MA 01760-5014, and is based on extensive tests, including those for toxicity, which are not set forth in this document. Because of the time necessary to conduct full evaluation (approximately 6 months), only those chemical treatments already approved and so listed in the invitation for bids or request for proposal shall be considered acceptable for the related procurement (see 1.1). Information on currently approved materials may be obtained from the Defense Personnel Support Center, Philadelphia, PA 19101.

4.3 Sources of documents.

4.3.1 Sources of non-Government association documents.

AATOC Chromatic Transference Scale is available from:

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

ASTM D-1424 - Tear Resistance of Woven Fabrics by Falling-Pendulum
(Elmendorf) Apparatus and
ASTM D-5034 - Breaking Force and Elongation of Textile Fabrics
(Grab Test) are available from:

American Society for Testing and Materials (ASTM)
1916 Race Street
Philadelphia, PA 19103-1187

4.3.2 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

MILITARY INTERESTS:

Custodians:

Army - GL
Navy - NU
Air Force - 99

Review activities:

Army - MD
Navy - MC
Air Force - 82
DLA - CT

CIVIL AGENCY COORDINATING ACTIVITY:

GSA - FSS

PREPARING ACTIVITY:

Army - GL

Project 8305-0411

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.

RECOMMEND A CHANGE:	1. DOCUMENT NUMBER	2. DOCUMENT DATE (YYMMDD)
DOCUMENT TITLE		
NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)		
REASON FOR RECOMMENDATION		
5. SUBMITTER		
a. NAME (Last, First, Middle Initial)	b. ORGANIZATION	
c. ADDRESS (include Zip Code)	d. TELEPHONE (include Area Code)	e. DATE SUBMITTED (YYMMDD)
	(1) Commercial	
	(2) AUTOVON	
	(if applicable)	
PREPARING ACTIVITY		
NAME	b. TELEPHONE (include Area Code)	
	(1) Commercial	(2) AUTOVON/DSN
c. ADDRESS (include Zip Code)	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 Telept (703) 758-2340 AUTOVON 288-2340	