

INCH-POUND

A-A-55250
August 29 1994

COMMERCIAL ITEM DESCRIPTION

CLOTH, ELASTIQUE, POLYESTER/WOOL

The General Services Administration has authorized the use of this commercial item description in preference to MIL-C-24903.

1. SCOPE

1.1 This commercial item description covers the requirements for one type of water-repellent-treated polyester and wool elastique cloth. The cloth is intended for use in the manufacture of the Coast Guard men's and women's overcoats.

2. SALIENT CHARACTERISTICS

2.1 The weave for the cloth shall be a right-hand twill as shown in Figure 1. The weave shall be confirmed with one determination per sample unit and the results shall be reported as "pass" or "fail". The minimum yarn for both the warp and filling shall consist of blended, combed, and spun polyester and wool fibers with a minimum average fiber length of 3 inches. The wool stock shall be fleece or pulled wool or both, not lower in grade than 64's U.S. Standard. The use of noils, laps or any other wool manufacturing by-products is prohibited. The polyester stock shall be semi-dull fiber made from polyethylene glycol terephthalate, either homo-polymer or modified-polymer as appropriate. The polyester and wool fiber shall be blended, combed and spun into a two-ply yarn for both the warp and filling. The denier shall be suitable to blend adequately with the wool grade.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Defense Personnel Support Center, Clothing and Textiles Directorate, Attn: DPSC-FQSD, 2800 South 20th Street, Philadelphia, PA 19101-8419.

AMSC N/A

FSC 8305

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

A-A-55250

The finished cloth shall consist of the following fiber percentages based on the oven-dry weight when tested according to FED-STD-191 Test Method 2102.

53 percent (min.), 60 percent (max.) polyester fiber

40 percent (min.) wool fiber, 64's U.S. Standard (or finer)

The weight of the cloth shall be a minimum of 16 ounces per linear yard, 60 inches wide when tested according to ASTM D3776 Option C. The yarns per inch shall be 120 warp by 85 filling when tested according to ASTM D3775. The breaking strength of the cloth shall be 220 pounds minimum in the warp and 145 pounds minimum in the filling when tested according to ASTM D5034. The tearing strength shall be 4.0 pounds minimum in the warp and 3.0 pounds minimum in the filling when tested according to ASTM D1424. The dimensional change of the cloth shall not shrink or elongate more than 3.5 percent in the warp and 3.0 percent in the filling when tested according to AATCC-99. The finished cloth shall show colorfastness to light (40 SFH), wet-dry cleaning and dry cleaning, perspiration, and crocking equal to or better than the standard sample. As a limit of acceptability or when no standard sample is available, the finished cloth shall meet the following requirements when tested in accordance with the following test methods:

- A minimum rating of "4" ("Good") fastness to light (40 SFH) when tested according to AATCC 16 Option A.

- A minimum rating of "4" ("Good") fastness to wet-dry cleaning when tested according to FED-STD-191, TM 5622 and dry cleaning when tested according to FED-STD-191, TM 5621.

- A minimum rating of "4" ("Good") fastness to perspiration when tested according to AATCC-15. The test for colorfastness for acid and alkaline solution shall apply.

- For crocking, color transfer equivalent to Row 4 on the AATCC Chromatic Transference Scale or Step 4 on the Gray Scale for Staining when tested according to AATCC-8.

The selvage yarns may be made of a finer count yarn with the same fiber content as that of the body of the cloth to prevent the edges of the cloth from building up when rolled. The color shall be Blue 3362 and shall match the standard sample, piece number 88252. The color shall be obtained by stock dyeing. As an alternate, piece dyeing may be used. The cloth shall be mothproofed according to MIL-C-43665, scoured, brushed, sheared, pressed, decated, and treated with an approved fluorocarbon type water-repellent treatment that provides a finish equal to that of the standard sample.

A-A-55250

The width of the finished cloth shall be a minimum of 60 inches inclusive of selvage when fly shuttle looms or shuttleless looms with tuck-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 fringes. Unless otherwise specified, the cloth shall be furnished in continuous lengths, each not less than 50 yards, and shall be put up on full-width rolls. The cloth shall be labeled in accordance with the Wool Product Labeling Act of 1939.

- Unless otherwise specified, a certificate of compliance shall be submitted for yarn ply and fiber content.

- For ASTM D3775, samples shall be conditioned as directed in "D1776 Practice for Conditioning Textiles for Testing" prior to testing.

- For ASTM D1424 use a standard instrument with one augmenting weight.

- The pH of the water extraction of the finished cloth shall be no less than 5.5 nor more than 8.5 when tested according to FED-STD-191 method 2811.

- The following exceptions to AATCC 16 Option A apply:

When a color change equal to Step 4 on the Gray Scale is evident in either the sample being evaluated or the standard sample, exposure shall be continued for an additional number of hours equal to the number of hours at which the color change was apparent. Specimens which do not show a color change until 80 AFU's shall be returned to the machine for a total exposure period not to exceed 140 hours.

The calibration of the fadeometer and the definition of AATCC Fading Units shall be according to AATCC Test Method 16. Using the formula below, 16 to 22 AFU's are acceptable as 20 SFH's.

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

Where (E*) is the color difference in CIELAB* units of color difference.

- Hydrostatic height shall measure a minimum of 19 centimeters initially when tested according to AATCC 127 and 19 centimeters after one dry cleaning when tested according to AATCC 70 and AATCC 127.

A-A-55250

- The following exceptions apply to AATCC 127

Side to be exposed to water must be indicated.

Drops of water penetrating the specimen at the clamped edge of the specimen or within 1/8 inch of this edge shall not be counted.

- The maximum initial absorption shall be 20 percent when tested according to AATCC 70.

- The results of the three individual determinations (each sample shall be 7 inches by 7 inches) on the sample unit for spray rating shall be equal to or better than ratings of 90,90,90 initially when tested according to AATCC 22 and 80,80,80 after one dry cleaning when tested according to AATCC 70 and AATCC 22.

- Test for resistance to organic liquid. Place a small specimen of the cloth on a smooth horizontal surface, face up. Using a pipette or eye dropper, gently deposit one drop of n-tetradecane on the surface of the specimen. After one minute, examine the specimen under light at an angle. Absence of light reflectance at the fabric-drop interface shall be taken as evidence of wetting. Three specimens (or areas) taken at various locations across the sample shall be tested. Evidence of wetting on one or more specimens shall be considered cause for rejection of the lot represented by the sample.

- Color matching. The color of the finished cloth shall match the standard sample when viewed under filtered tungsten lamps which approximate artificial daylight having a color temperature of 7500 ± 200 Kelvin, with illumination of 100 ± 20 foot candles, and shall be a good match to the standard sample under incandescent lamplight at 2300 ± 200 Kelvin.

2.2 Label/tag. Each roll of cloth shall be individually bar-coded with the type VIII, class 17 label/tag of DDD-L-20. This label/tag shall be located so that it is completely visible on each roll.

3. REGULATORY REQUIREMENTS

3.1 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).

A-A-55250**4. QUALITY ASSURANCE PROVISIONS**

4.1 Certification. The contractor shall certify and maintain substantiating evidence that the product offered meets the salient characteristics of this commercial item description; conforms to the producer's own drawings, specifications, standards, and quality assurance practices; and is the same product offered for sale in the commercial marketplace. 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.

4.2 Market acceptability criteria. The item offered must have been sold to the commercial market or to the Government, and the contractor shall certify and provide supporting documentation as to its serviceability and the long term (five years) availability of all necessary maintenance and logistics support parts and materials.

4.3 Warranty. The item offered shall include the standard warranty given to the commercial market beginning with the date of delivery of the individual items.

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

Defects. Any hole, cut, or tear; broken or missing yarn; smash; float, mispick, harness skip, or other misweave; hitchback, stripback; open or thin place, crack (warp or filling); knot or slub; loose, slack, or tight yarns; reed mark, wrong draw; abrasion mark, bruise, tender or weak spot; embedded crease or wrinkle; selvage cut, torn, folded, rolled, slack, or tight; filling bar, coarse filling, or mixed filling; spot, stain, streak, or dirty yarn; foreign matter; shade not as specified; finish not equal to or better than standard; offshade or uneven shading throughout piece; mottled, cloudy, streaky, or barre; overall uncleanness or soiled; baggy, ridgy, wavy, or unevenly woven; width not within established tolerances; net length less than indicated on the ticket; fiber identification marking omitted; bar code omitted or not readable by scanner; human-readable interpretation (HRI) omitted or illegible; bar code not visible on roll; bar code causes damage to the item. Each defect shall be marked with a 1-1/2 inch long string; the string shall be inserted into the selvage opposite the defect.

5. PACKAGING

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

A-A-55250

6. NOTES

6.1 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

6.2 Source of non-Government documents

ASTM Test Methods

(Applications for copies should be addressed to American Society For Testing and Materials, 1916 Race Street, Philadelphia, PA 19103-1187.)

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.)

Custodian:
Coast Guard - CG

Civil Agency Coordinating
Activity:
GSA - FSS

Preparing Activity:
DLA - CT

Project No. 8305-0532

A-A-55250

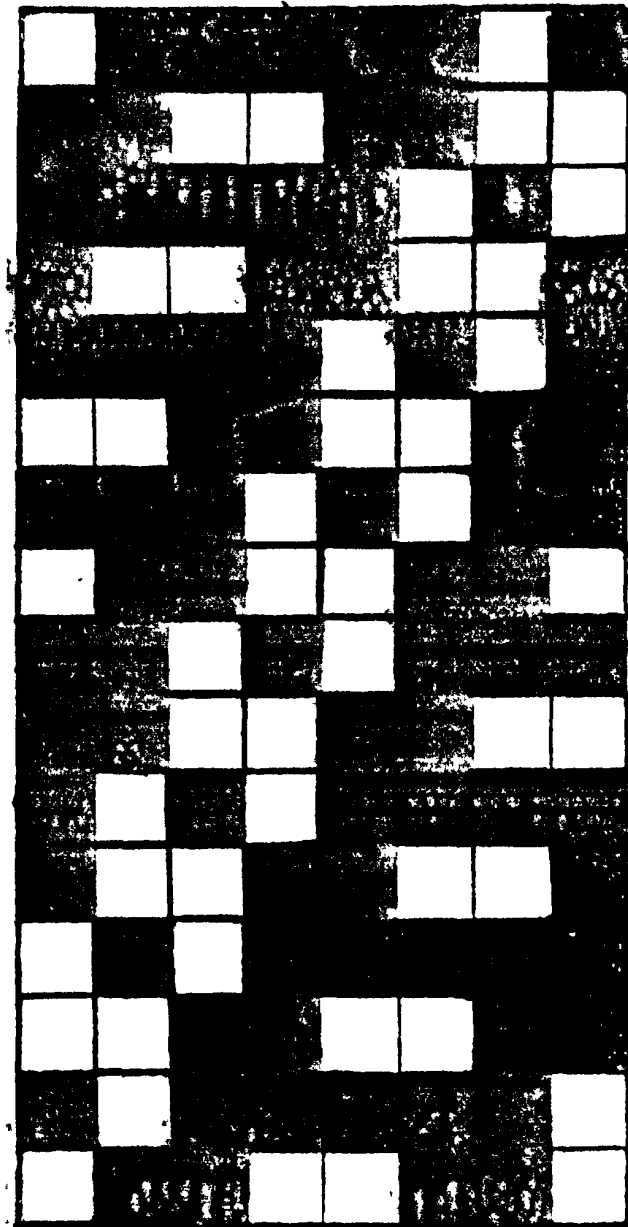


Figure 1 - WEAVE PATTERN