INCH-POUND

A-A-59708
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SUPERSEDING
CCC-D-950F
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COMMERCIAL ITEM DESCRIPTION

CLOTH, COTTON, AFTERTREATED WATER- REPELLANT, WATER-REPELLANT, AND MILDEW RESISTANT, MILDEW RESISTANT

The General Services Administration has authorized the use of this commercial item description in preference to Federal Specification CCC-D-950

1. SCOPE This specification governs dyeing and water-repellent and mildew-resistant after treating of cotton cloth.

2 CLASSIFICATION

2.1 Types. The finished cloth shall be of the following types

Type:	
I	- Water -repellent after treated
II	- Water -repellent and mildew – resistant after treated
III	- Mildew resistant after treated

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Defense Supply Center Philadelphia, Clothing and Textiles Directorate, Attn.: DSCP-COCT, 700 Robbins Ave., Philadelphia PA., 19111-5092.

AMSC N/A
DISTRIBUTION STATEMENT A FSC 8305
Approved for public release distribution is unlimited.

3. SALIENT CHARACTERISTICS

3.1 Standard sample. The cloth shall match the standard sample for shade and appearance and shall be equal to the standard sample with respect to all characteristics for which the standard sample is referenced

3.2 Materials. The specification governing the requirements for the untreated cloth to be dyed or treated under this specification shall be as cited in the applicable procurement document .

3.2.1 Cloth. The cloth shall conform to the requirements of the applicable specification for the untreated material prior to, and after aftertreating, except as otherwise indicated herein.

3.3 Physical requirements. Tests for the physical properties of the finished cloth specified herein shall be conducted as follows. The physical and chemical values specified in section 3 (except where otherwise indicated), apply to the results of determinations made on a sample unit for test purposes as specified in the applicable test method. The sample unit for testing shall be 1-1/2 yards of the untreated cloth, 1/2 yard of cloth prior to treatment and 3 linear yards of the finished cloth, all full width of the material. When shrinkage is required, the sample unit (finished cloth) shall be 5 linear yards. The sample size shall be as shown in table below. the sample unit shall be 1/4 yard and the sample size shall be five for all lots less than 22,001 units in size and eight for all lots over 22,000 units in size. The lot size shall be expressed in units of 1 yard. The lot shall be unacceptable If one or more sample units fail to meet any specified requirement, or when the lot average determination for change in yarns per inch or breaking strength does not meet specific requirements. All test reports shall contain the individual values utilized in expressing the final results.

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

3.3.1 Finished width. The minimum overall width of the finished cloth shall be as specified (see 6.2), with the following tolerances:

Specified width of finished cloth	Tolerance	
Up to 45 inches	Plus 1/4	minus 1/4
46 inches to 58 inches	Plus 3/8	minus 1/4
59 inches to 66 inches	Plus 5/8	minus 3/8
Over 66 inches	Plus 3/4	minus 1/2

3.3.2 Yarns per inch.

3.3.2.1 Warp. The warp yarns per inch of the finished cloth shall be not less than 95 percent of the warp yarns per inch of' the untreated cloth when tested in accordance with ASTM-D-3775 Standard Test Method for Fiber Count of Woven Fabric.

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3.3.2.2 Filling. The filling yarns per inch of the finished cloth shall be not less than 90 percent of the filling yarns per inch of the untreated cloth when tested in accordance with ASTM-D-3775 Standard Test Method for Fiber Count of Woven Fabric.

3.3.3 Breaking strength. The breaking strength of the finished cloth shall be not less than 90 percent of the breaking strength of the untreated cloth in the warp direction and not less than 85 percent of the breaking strength of the untreated cloth in the filling direction when tested in accordance with ASTM-D-5034 Standard Test method for Breaking Strength and Elongation of textile methods. G-E or G-T.

3.3.4 Shrinkage. When preshrunk cloth is specified in the applicable cloth document, the residual shrinkage shall be more not more than 2.0 percent in either the warp direction or the filling direction when tested in accordance with ASTM-D-96 test Ic, D, Shrinkage in Laundering: Cotton Linen & blended Cotton & Linen Cloth.

3.4 Color . The color of the finished cloth shall be as specified in the contract or purchase order and shall match the standard sample.

3.4.1 Matching The color of the dyed or printed, treated or untreated, or the untreated bleached cloth shall match the standard sample when viewed under filtered tungsten lamps that approximate artificial daylight and that have a color temperature of 7500 +/- 200 K**,** with illumination of 100 +/- 20 foot candles, and shall be a good match to the standard sample under incandescent lamplight at 2300 +/- 200 K.

3.4.2 Colorfastness Type I The finished cloth shall show fastness to laundering (after 3 cycles), equal to or better than the standard sample or a rating of 3-4 on the AATCC Gray Scale for change in color when tested in accordance with AATCC-61 Colorfastness to Laundering, Home and Commercial, Accelerated, test 4A and accelerated weathering equal to or better than the standard sample or a rating of 3-4 on the AATCC Gray Scale for change in color when tested in accordance with AATCC-111 Weather Resistance of Textiles (80 standard fading hours). The finished cloth shall show fastness to crocking equal to or better than the standard sample or shall have an AATCC Chromatic Transference Scale rating of not lower than 1.5 when tested in accordance with AATCC-8 Crocking; AATCC Crockmeter Method.

3.5 After treating.

3.5.1 Type I- Water repellant after treated. The cloth shall have a commercial acceptable water repellant finish.

3.5.1.1 Hydrostatic resistance. The hydrostatic resistance of the following listed, finished cloths shall meet the requirements specified when tested in accordance with AATCC 127 Water Resistance: Hydrostatic Pressure Test.

	Hydrostatic height (centimeters)	
	Average (minimum)	Single value (minimum)
Army ducks, 10 oz. per sq. yd. and over	30	25
Army ducks, under 10oz. per sq. yd.	25	20
Numbered ducks:		
No. 10 and lighter	30	25
No. 8 and heavier	35	30
Flat ducks	25	20
Twills	30	25

3.5.1.2 Spray rating (Types I, and II). The measurements of the three Individual determinations of the sample unit for spray rating for the types I, and II cloths shall be equal to or better than 80, 80, 70 when tested in accordance with AATCC 22 Water Repellency: Spray Test.

3.6 Type II water repellant and mildew after treated cloth.

3.6.1 Water repellent and mildew resistant after treated. The cloth shall have a commercial acceptable water repellant finish and shall meet the requirements as specified in 3.5.1, 3.5.1.1 and 3.5.1.2.

3.6.2 Mildew resistant. Textile materials intended for direct contact with soil, such as, but not limited to CCC-C-419, CCC-C-428, MIL-C-10799, MIL-C-10859, MIL-C-43627, MIL-T-3530, MIL-T-43566, MIL-W-43638, MIL-W-530, MIL-W-5665, shall be treated with an inorganic, metalized, mildew inhibitor. A certificate of compliance will be accepted which certifies that the textile material shall retain a 75% breaking strength after 12 weeks soil burial initially and after leaching when tested in accordance with AATCC Test Method 30, Antifungal Activity, Assessment of Textile Materials: Mildew and Rot Resistance of Textile Materials, Test 1.

Textile materials intended for use that will not come into contact with soil, such as, but not limited to CCC-C-429, CCC-C-700, MIL-B-371, MIL-F-2312, may be treated with an organic mildew inhibitor. A certificate of compliance will be accepted which certifies the textile material has been tested in accordance with AATCC Test Method 30, Test III and rated no more than “Microscopic Growth”.

3.6.3 Colorfastness of Type II The colorfastness of the cloth prior to after treatment shall be as specified in 3.4.2

3.7 Type III mildew-resistant after treated.

3.7.1 Type III cloth. The cloth shall be mildew - resistant treated in accordance with 3.6.2.

3.7.2 Colorfastness of Type III cloth. The colorfastness requirements for the cloth shall be as specified for the type II cloth as in 3.6.3.

3.8. pH. All types I and II treated cloths shall have a pH value not less than 5.5 nor more than 8.5 when tested in accordance with AATCC 81 pH of the Water Extracted from Textiles.

3.9 Fiber identification. Each roll shall be labeled, and ticketed for fiber content in accordance with the Rules and Regulations Under the Textile Fiber Products Identification Act.

3.10 Marking. The face side of the cloth shall be identified by applying a stamping on that side of the cloth with the word "Face" at each end of the roll.

3.11 Length and put-up. The put-up shall be commercial. The minimum length of' pieces shall be as specified in accordance with the untreated cloth specification.

3.12 Workmanship. The finished cloth shall conform to the quality established by this specification.

3.13 Toxicity. The finished cloth shall not present a dermal health hazard when used as intended. Before use, mildew inhibitors must have written toxicity approval from U.S. Army Center for Health Promotion and Preventive Medicine, 5158 Blackhawk Rd., Aberdeen Proving Ground, Maryland 21010-5403.

4. REGULATORY REQUIREMENTS.

4.1 Recycled, recovered, or environmentally preferable materials. Recycled, recovered, or environmentally preferable materials should be used to the maximum extent possible in accordance with paragraph 23.403 of the Federal Acquisition Regulation Act (FAR), provided that the material meets or exceeds the operational and maintenance requirements and promotes economically advantageous life cycle costs.

5. QUALITY ASSURANCE PROVISIONS

5.1 Product conformance. The products provided shall meet the salient characteristics of this commercial item description and conform to the producer's own drawings, specifications, standards and quality assurance practices. The Government reserves the right to require proof of such conformance.

5.2 Visual 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 roll exceeds 100 yards, only 100 yards shall be-examined for the defects listed below.

5.2.1 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; any items not packaged in accordance with the contract or purchase order. Each defect shall be marked with a 1-1/2 inch long string; the string shall be inserted into the selvage opposite the defect.

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

6. PACKAGING. The preservation, Packaging 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

7.1.1 Other Government Documents

FEDERAL TRADE COMMISSION

Rules and Regulations Under The Textile Fiber Products Identification Act

(Copies may be obtained without charge from the Federal Trade Commission, Washington, DC 20580-0001).

CODE OF FEDERAL REGULATIONS

16 CFR Part 1500 - Federal Hazardous Substances Act Regulations
29 CFR Part 1910 - Occupational Safety and Health Standards

(Applications for copies of referenced documents should be addressed to U. S. Government Printing Office, Superintendent of Documents, Mail Stop: SSOP, Washington, DC 20402-9328.)

CODE OF FEDERAL REGULATIONS

Title 40, part 798.4470 (Primary Dermal Irritation)

(This reference may be found on the Internet at www.access.gpo.gov/nara/cfr/cfr-table-search.html.)

7.2 Source of non-Government documents.

American Society for Testing and Materials (ASTM) Test Methods

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

American Association of Textile Chemists and Colorists (AATCC) Test Methods

(Application for copies should be addressed to the American Association of Textile Chemists and Colorists, P.O. Box 12215, Research Triangle Park, NC 27709.)

Principles and Methods of Toxicology, A. Wallace Hayes (editor), 1989, pp 394-396.

(Applications for copies of referenced documents should be addressed to Raven Press, 1185 Avenue of the Americas, New York, NY 10036)

7.3 Titles of non-Government Documents.

ASTM-D-3775	Standard Test Method for Fiber Count of Woven Fabric.
ASTM-D-5034	Standard Test method for Breaking Strength and Elongation of textile methods.
ASTM-D-96	Shrinkage in Laundering: Cotton Linen & blended Cotton & Linen Cloth.
AATCC-61	Colorfastness to Laundering, Home and Commercial, Accelerated, test 4A
AATCC-111	Weather Resistance of Textiles
AATCC-8	Crocking; AATCC Crockmeter Method

AATCC 127	Water Resistance: Hydrostatic Pressure Test.
AATCC 22	Water Repellency: Spray Test
AATCC 30	Antifungal Activity, Assessment on Textile Materials: Mildew and Rot Resistance of Textile Materials
AATCC 81	pH of the Water Extracted from Textiles

7.4 Sources for Cotton Cloth. For cotton cloth sources see the individual end item specifications.

7.5 Sources of Mildew Inhibitor. Sources that could be used but not limited to, are as follows:

a. Rohm and Hass Company
100 Independence Mall West
Philadelphia, PA 19106-2899

b. Kenney Sales Associates
P.O. Box 258
89 Main St.
Medway, MA 02053".

MILITARY INTRESTS:

Custodians
Army-GL
Navy-NU

CIVIL AGENCY COORDINATING ACTIVITIES:

GSA-FSS
JUS-FPI

PREPARING ACTIVITY:

DSCP-CT

(Project Number 8305-0797)

Review Activity

Army-MD, AV
Navy-MC, YD