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Superseding
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The following commercial specification is adopted from the military document. Revision A includes all known accepted revisions, amendments, notices and Department of Defense (DoD) engineering changes previously developed for this item. Revisions B and forward include changes adopted to reflect technology and design evolution.

CLOTH, DUCK, NYLON, 12.5 OUNCE

The Parachute Industry Association makes this document available for use by Industry and Government organizations that wish to apply this specification to their products.

1. SCOPE

1.1 Scope. This specification covers 12.5 ounce, nylon, duck cloth.

1.2 Classification. The cloth shall be of the following classes as specified (see 6.1):

Class 1 - Dyed

Class 2 - Dyed, water-repellent.

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in Sections 3 and 4 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of the documents cited in Sections 3 and 4 of this specification, whether they are listed or not.

2.2 Government publications.

2.2.1 Government publications. The following publications form a part of this document:

FEDERAL STANDARDS

FED-STD-4 - Glossary of Fabric Imperfections

(Unless otherwise indicated, copies of Federal and Military specifications, standards, and handbooks are available from the Standardization Documents Order Desk, Bldg. 4D, 700

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Robbins Avenue, Philadelphia, PA 19111-5094. Electronic copies of Military and Federal standards and specifications may be obtained from <https://assist.daps.dla.mil/quicksearch/>.)

FEDERAL TRADE COMMISSION (FTC)

16 CFR 303 - Rules and Regulations Under the Textile Fiber Products Identification Act

(Copies are available online at: www.ftc.gov or from the Federal Trade Commission, 600 Pennsylvania Avenue, N.W., Washington, DC 20580-0001. Electronic copies may be obtained from <http://www.access.gpo.gov/>.)

2.3 Non-government publications. The following documents form a part of this document (see 2.4).

AMERICAN SOCIETY FOR QUALITY (ASQ)

ANSI/ASQ Z1.4 - Sampling Procedures and Tables for Inspection by Attributes

(Copies are available online at: www.asq.org or American Society for Quality, 600 Plankinton Avenue, Milwaukee, WI 53203.

ASTM INTERNATIONAL (ASTM)

ASTM D 737 - Standard Test Method for Air Permeability of Textile Fabrics
 ASTM D 1776 - Standard Practice for Conditioning Textiles for Testing
 ASTM D 3775 - Standard Test Method for Warp (End) and Filling (Pick) Count of Woven Fabrics
 ASTM D 3776 - Standard Test Methods for Mass per Unit Area (Weight) of Fabrics
 ASTM D 5034 - Standard Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)

(Application for copies should be addressed to ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959. Electronic copies may be obtained from www.astm.org.)

AMERICAN ASSOCIATION OF TEXTILE COLORISTS AND CHEMISTS (AATCC)

AATCC 8 - Colorfastness to Crocking; Crockmeter Method
 AATCC 16 - Colorfastness to Light
 AATCC 20 - Fiber Analysis: Qualitative
 AATCC 20A - Fiber Analysis: Quantitative
 AATCC 22 - Water Repellency: Spray Test
 AATCC 61 - Colorfastness to Laundering: Accelerated
 AATCC 81 - pH of the Water-Extract from Wet Processed Textiles
 AATCC 96 - Dimensional Changes in Commercial Laundering of Woven and Knitted Fabrics Except Wool
 AATCC 107 - Colorfastness to Water

AATCC 192 - Weather Resistance of Textiles: Sunshine-Arc Lamp
Exposure with and without Wetting

AATCC Evaluation Procedures:

- 1 Gray Scale for Color Change
- 2 Gray Scale for Staining
- 8 AATCC 9 - Step Chromatic Transference Scale
- 9 Visual Assessment of Color Difference of Textiles.

(Application for copies should be addressed to the AATCC National Headquarters, P.O. Box 12215, Research Triangle Park, NC 27709-2215. Electronic copies may be obtained from www.aatcc.org.)

2.4 Order of precedence. Unless otherwise noted herein or in the contract, in the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 First article. When specified (see 6.1), a sample representative of the production quality shall be subjected to first article inspection in accordance with 4.3.

3.2 Standard. The cloth shall, unless otherwise indicated (see 3.5.1), match the standard for shade and shall be equal to or better than the standard with respect to all characteristics for which the standard is referenced (see 6.2).

3.3 Recycled, recovered, or environmentally preferable materials. Recycled, recovered, or environmentally preferable materials should be used to the maximum extent possible, provided that the material meets or exceeds the operational and maintenance requirements, and promotes economically advantageous life cycle costs.

3.4 Material.

3.4.1 Yarn. The yarn for the warp shall be 840 nominal denier, high tenacity bright, multifilament nylon and the yarn for the filling shall be 1260 nominal denier or equivalent plied denier, bright high tenacity multifilament nylon. The yarn shall not be bleached in any manner or process.

3.5 Color. The color of the finished cloth shall be as specified by the procuring activity (see 6.1).

3.5.1 Visual shade matching. When evaluated in accordance with 4.4.4.2, the color of the dyed fabric shall match the standard when viewed with sources simulating artificial daylight D75 illuminant and shall be good match to the standard under incandescent lamplight.

3.5.2 Colorfastness. When tested as specified in 4.4.3, the finished fabric shall show fastness to light, laundering, and crocking as follows: