

**INCH-POUND**

A-A-52095B  
MAY 2, 2008  
SUPERSEDING  
A-A-52095A  
JUNE 21, 2000

## COMMERCIAL ITEM DESCRIPTION

### THREAD, POLYESTER TEXTURED

The General Services Administration has authorized the use of this commercial item description as a replacement for MIL-T-44193 for all federal agencies.

1. **SCOPE.** This commercial item description covers the requirements for textured polyester thread intended for use in the fabrication of t-shirts, underwear, stretchable operations, and other knitted or lightweight woven end item applications.

2. **CLASSIFICATION.** Sizes.

Tex  
18  
24  
35  
45  
50  
70  
105

3. **SALIENT CHARACTERISTICS.**

Description. The thread shall be a textured continuous multifilament polyester (polyethylene glycol terephthalate) strand held together by twist. The thread shall be as specified below in Table I.

Comments, suggestions, or questions on this document should be addressed to: Defense Supply Center Philadelphia, Clothing and Textiles Directorate, Attn: DSCP Standardization Team, 700 Robbins Avenue, Philadelphia, PA 19111-5096. Since contact information can change, you may want to verify the currency of this address information using Acquisition Streamlining and Standardization Information System (ASSIST) online database at <http://assist.daps.dla.mil>.

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TABLE I. Physical Characteristics

Tex <u>1/</u> (sizes)	Breaking strength, lbs (min)	Elongation, % (max)
18	1.4	35
24	1.9	35
35	2.5	35
45	3.2	35
50	3.9	35
70	5.8	35
105	6.9	35

1/ Tex size based on weight in grams / 1,000 meters thread.

3.2 Physical Requirements: The thread shall conform to the requirements in Table II.

TABLE II. Physical requirements

Characteristic	Requirement	Test method
Fiber Identification	Polyester	ASTM D 276 or AATCC 20
Twist per inch	1.5 (min.)	ASTM D 204
Tex (Ticket) Size	See Table I	ASTM D 3823
Breaking Strength	See Table I	ASTM D 2256 <u>1/</u> <u>2/</u>
Elongation	35% (max)	ASTM D-2256 <u>1/</u> <u>2/</u>
Colorfastness:		See 3.4
Croaking	3.5 (min.)	AATCC-8 <u>3/</u>
Laundering (after 3 cycles)	3-4 (min.)	AATCC-61 Test 3A <u>4/</u> <u>5/</u>
Wet dry-cleaning	3-4 (min.)	AATCC-132 <u>3/</u> <u>6/</u>

1/ Testing speed shall be  $12 \pm 5.0$  in./min., and a 10 inch gauge length shall be used.

2/ Five determinations per sample unit.

3/ AATCC Evaluation Procedure 8, AATCC 9- Step Chromatic Transference Scale

4/ AATCC Evaluation Procedure 1, Gray Scale for Color Change

5/ The color transfer cloth evaluation shall not apply. No appreciable change in shade or loss of color of the tested specimen shall be visible when compared to the untested thread.

6/ AATCC Evaluation Procedure 2, Gray Scale for Staining

3.3 Color. The color shall be as specified in the applicable end item specification or in the contract order. The dyed thread shall be a good match to the applicable approved shade standard when examined in accordance with paragraph 3.5.

3.4 Finish removal procedure. Before evaluation for shade matching and testing for colorfastness, except for colorfastness to wet dry cleaning, the thread shall be wet dry cleaned in accordance with AATCC-132. Excess solvent shall be removed by centrifuging or wringing. The sample shall then be rinsed in distilled water at 120° to 160°F and dried at a temperature not exceeding 180°F. The dried sample shall then be conditioned for a minimum of 4 hours prior to evaluation for shade matching or colorfastness.

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3.5 Visual shade matching. The color and appearance of the finished thread, after removal of finish (see 3.4), shall match the standard sample when viewed using AATCC Evaluation Procedure 9, Option A, with sources stimulating artificial daylight D75 illuminant with a color temperature of  $7500\text{ K} \pm 200$ , with illumination of 100 foot candles  $\pm 20$ , and shall be a good match to the standard sample under incandescent lamplight at  $2856\text{K} \pm 200$ .

3.6 Finishing materials. The finished thread shall have no chemical finishes or treatments other than those commonly used, i.e. water-repellent, etc, on commercial threads which have been demonstrated to have no deleterious effects on the fiber, including effects of prolonged storage. No finish or treatment shall be applied for the purpose of increasing breaking strength. There shall be no noticeable wicking of the treatment on the thread to adjacent material when sewn.

3.7 Toxicity. The finished thread shall not present a health hazard and shall show compatibility with prolonged, direct skin contact when tested as specified in 3.7.1. Chemicals recognized by the Environmental Protection Agency (EPA) as human carcinogens shall not be used.

3.7.1 Toxicity test. When required (see 7.3), an acute dermal irritation study and a skin sensitization study shall be conducted on laboratory animals. When the results of the studies indicate the thread is not a sensitizer or irritant, a Repeat Insult Patch Test shall be performed in accordance with the Modified Draize Procedure. (See 7.1.5) If the toxicity requirement (see 3.7) can be demonstrated with historical use data, toxicity testing may not be required.

3.8 Put-up. Unless otherwise specified, the thread shall be put-up on holders such as commercial spools, cones, or tubes as specified in the contract. The thread shall be wound around the specified holder in one continuous piece, so that each turn and layer is free of entanglement. The outside ending of the thread shall be secured to prevent unwinding, loosening, or slippage during handling, shipping, or storage.

3.9 Labeling. Each holder shall have a label, adhered securely so as to remain in place and be clearly legible until all thread has been removed. The label shall be printed and include information related to twists per inch, color, size (TEX or ticket number), name of thread manufacturer, weight, and nomenclature specifying fiber and construction type.

3.10 Workmanship. The finished thread shall conform to the quality of product established by this document. The thread shall average not more than one full thread knot or splice per 1,000 yards.

4. REGULATORY REQUIREMENTS. 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).

5. PRODUCT CONFORMANCE PROVISIONS.

5.1 Product Conformance. The products provided shall meet the salient characteristics of this Commercial Item Description, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and be the same product offered for sale in the

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commercial marketplace. The Government reserves the right to require proof of such conformance.

### 6. PACKAGING.

6.1 Packaging. Preservation, packing, and marking shall be specified in the contract or order.

### 7. NOTES.

#### 7.1 Sources of documents.

7.1.1 Copies of government documents are available online at <http://assist.daps.dla.mil/quicksearch/> or [www.assist.daps.dla.mil](http://www.assist.daps.dla.mil) or from the Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

7.1.2 AATCC Standards are available online at [www.aatcc.org](http://www.aatcc.org) or from the American Association of Textile Chemists and Colorists, P.O. Box 12215, Research Triangle Park, NC 27709-2215.

7.1.3 ASTM Standards are available online at [www.astm.org](http://www.astm.org) or from ASTM INTERNATIONAL, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

7.1.4 Federal Acquisition Regulations are available online at <http://acquisition.gov/far/index.html> or by contacting the Superintendent of Documents at 202-512-1800.

7.1.5 Principles and Methods of Toxicology (fourth edition), A Wallace Hayes (editor), pp1057 - 1060, 2001 are available from Taylor and Francis, Philadelphia PA or <http://www.taylorandfrancis.co.uk/>.

#### 7.2 Standard samples, patterns and drawings.

7.2.1 Standard samples and pattern drawings, address the contracting activity issuing the invitation for bids or request for proposal. Standard samples (Also available at DSCP through <http://warfighter.dla.mil> under tab "Vendor Info" then "Specifications/Pattern Request" under "Special Instructions") provide color shade, roll number and solicitation/contract number.

#### 7.3 Ordering data.

- a. CID document number, title and revision
- b. Size of thread required (see 2.0)
- c. Color required (see 3.3)
- d. When toxicity testing is required (see 3.7)
- d. Put-up required (see 3.8)
- e. Product conformance provisions (see 5.1)
- f. Packaging requirements (see 6.1)

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7.3 Key words.

Clothing  
Machine, Sewing

MILITARY INTERESTS:

Custodians:  
Army – GL  
Navy – NU  
Air Force – 11

Review Activities:  
Army – MD  
Navy – MC

CIVIL AGENCY COORDINATING ACTIVITY:

GSA – FSS

Preparing activity:

DLA-CT

(Project 8310-2007-001)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using ASSIST Online database at <http://assist.daps.dla.mil>.