

INCH-POUND

A-A-52095

March 15, 1991

COMMERCIAL ITEM DESCRIPTION

THREAD, POLYESTER, TEXTURED

The General Services Administration has authorized the use of this commercial item description in preference to MIL-T-44193.

Abstract. 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.

1. CLASSIFICATION

1.1 Classification. This commercial item description covers the requirements for textured polyester thread in the sizes and colors as specified in 2.2 and table I (see 5.1).

TABLE I. Thread, polyester, textured

Thread size (g/km) (Approximate Tex)	Length per pound (yards) nominal	Breaking strength (pounds) minimum	Elongation (percent) maximum	Twist per inch minimum
18	25,500	1.6	35	1.5
24	20,000	2.1	35	1.5
35	12,500	2.5	35	1.5
45	9,500	3.2	35	1.5
50	8,500	3.9	35	1.5

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

AMSC N/A

FSC 8310

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2. SALIENT CHARACTERISTICS

2.1 Description. The yarn shall be textured continuous multifilament polyester (polyethylene glycol terephthalate). The thread shall be a textured strand held together by twist. The thread shall average not more than one full thread knot per 3,000 yards. No chemical finishes shall be applied except those necessary to provide good sewing quality and which are commonly used on commercial threads.

2.2 Color. The color (shade) shall be as specified in the applicable end item specification or as set forth in the contract or purchase order. The dyed thread shall conform to applicable approved shade standard.

2.2.1 Colorfastness. The colorfastness of the dyed and finished thread shall be as specified in the applicable end item specification or as set forth in the contract or purchase order. When requirements are not stated, the thread shall show good colorfastness to laundering (after three cycles), wet drycleaning, and crocking (see 3.4).

2.2.2 Color matching. The color of the dyed thread shall match the standard sample (see 3.4).

2.3 Physical requirements. The finished thread shall conform to the requirements specified in table I (see 3.4).

2.4 Put-up. Unless otherwise specified (see 5.1), all thread sizes shall be put-up on cones of a nominal weight per holder of 8 ounces, 16 ounces, or 24 ounces. The thread shall be put-up in a continuous length per holder.

3. QUALITY ASSURANCE

3.1 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.

3.2 Quality conformance inspection. Unless otherwise specified, sampling for inspection shall be performed in accordance with MIL-STD-105.

3.3 End item visual examination. Each lot of thread shall be examined for consumer type defects, defined as follows:

Defects in design, construction, or workmanship; holder type other than specified; loose ply, cut, tear, chafe, or slip affecting strength of thread or interfering with easy location of end and initial unwinding; color other than specified; dirt, spot, or stain clearly noticeable; finish other than specified.

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The lot size shall be expressed in units of holders. The sample unit shall be one holder. The inspection level shall be S-3, and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 4.0.

3.4 End item testing. The methods of testing specified in FED-STD-191, wherever applicable, and as listed in table II shall be followed. The lot size shall be expressed in units of holders. The sample unit shall be one holder. The inspection level shall be S-1, and the AQL, expressed in terms of defects per hundred units, shall be 6.5.

TABLE II. End item tests

Characteristic	Requirement paragraph	Test method
Polyester yarn:		
Identification	2.1	1600 <u>1</u> /
Continuous filament	2.1	Visual <u>1</u> /
Finish	2.1	<u>1</u> /
Color (shade)	2.2	<u>2</u> /
Colorfastness to:		
Wet drycleaning	2.2.1	5622
Laundering (after 3 cycles)	2.2.1	5610 <u>3</u> /
Crocking	2.2.1	8 AATOC <u>4</u> /
Length per pound	2.3	4010 <u>5</u> /
Breaking strength	2.3	4100
Elongation	2.3	4100

1/ Unless otherwise specified, a certificate of compliance shall be submitted and will be acceptable for the stated requirement.

2/ Finish removal procedure. Before evaluation for shade matching, the sample of thread shall be wet drycleaned in accordance with Method 5622 of FED-STD-191. Excess solvent shall be removed by centrifuging or wringing. The sample shall then be rinsed in distilled water at 120°F 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 match. The thread shall be shade matched 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 $2300 \pm 200\text{K}$.

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- 3/ The test specimen shall be dried after each of the three laundering cycles. 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 retained.
- 4/ Amercian Association of Textile Chemists and Colorists test method.
- 5/ The length per pound of the thread shall be determined on thread without finish. Procedure for the removal of the finish shall be as stated in 2/.

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

4. PACKAGING

4.1 Packaging. Cones shall be individually packaged in a snug-fitting clear plastic bag. The bag shall be closed by means of a twist tie, or by tucking the open end into the end of the cone.

4.2 Packing. Thread, packaged as specified, shall be packed in a snug-fitting fiberboard shipping container conforming to style RSC-L, type CF (variety SW) or SF, class domestic, grade 275 of PPP-B-636. The fiberboard liner is not required when the thread is packaged in paperboard boxes. The shipping container shall be of a size that can be palletized in accordance with MIL-STD-147. The weight of the shipping container and contents shall not exceed 50 pounds. Shipping containers shall be closed in accordance with the appendix of PPP-B-636.

4.3 Palletization. When specified (see 5.1), thread, packed as specified, shall be palletized on a 4-way entry pallet in accordance with load type Ia of MIL-STD-147. Pallet types shall be type I (4-way entry), type IV, or type V. Each prepared load shall be bonded with primary and secondary straps in accordance with bonding means C and D or film bonding means F or G.

4.4 Marking. In addition to any special marking required by the contract or purchase order, unit packs, shipping containers, and unit loads shall be marked in accordance with MIL-STD-129.

5. NOTES

5.1 Ordering data. Acquisition documents must specify the following:

- a. Title, number, and date of this document.
- b. Size and color required (see 1.1).
- c. When put-up other than specified, is required (see 2.4).
- d. When palletization is required (see 4.3).

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5.2 Sources for referenced documents.

5.2.1 Source for Government documents. Copies of Military and Federal documents are available from:

Standardization Documents Order Desk
Building 4D
700 Robbins Avenue
Philadelphia, PA 19111-5094

5.2.2 Source for non-Government documents. Copies of the AATCC Chromatic Transference Scale are available from:

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

MILITARY INTERESTS:

Custodians

Army - GL
Navy - NU
Air Force - 11

Review Activities

Army - MD
Air Force - 82, 99
DLA - CT

User Activity

Navy - MC

CIVIL AGENCY COORDINATING ACTIVITY:

GSA - FSS

PREPARING ACTIVITY:

Army - GL

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