

INCH-POUND

A-A-59989

December 4, 2018

## COMMERCIAL ITEM DESCRIPTION

### THREAD, POLYESTER, SPUN

The General Services Administration has authorized the use of this Commercial Item Description as a replacement for MIL-T-43624B, for all federal agencies.

1. **SCOPE.** This Commercial Item Description covers the requirements for spun polyester thread used for machine sewing.
2. **CLASSIFICATION.** This CID document shall cover one (1) type of spun polyester thread.
3. **SALIENT CHARACTERISTICS.**

3.1 Description. The yarn for this thread shall be spun from cut-staple polyester having a specific gravity of 1.36 to 1.40. The thread shall be made by twisting together two (2) or more of the single yarns and unless otherwise specified, the single yarn shall be twisted “S” and the final plied twist shall be “Z”.

3.2 Physical requirements. The finished thread shall conform to the applicable physical characteristics as specified in Tables I, when tested as specified in Table II.

Comments, suggestions, or questions on this document should be addressed to: DLA Troop Support Standardization Team, 700 Robbins Avenue, Philadelphia, PA 19111-5096. Since contact information can change, you may want to verify the currency of the address information using Acquisition Streamlining and Standardization Information System (ASSIST) online database <https://assist.dla.mil>.

AMSC N/A

FSC 8310

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TABLE I. Physical characteristics.

Tex (approximate)	Ply	Breaking strength, lbs. (min.)	Elongation, % (max.)
20	2	1.2	20
25	2	1.7	20
30	2 or 3	2.2	20
40	2 or 3	2.7	20
45	2 or 3	3.3	20
60	2, 3 or 4	4.5	20
70	2, 3 or 4	5.7	20
85	2, 3 or 4	7.0	22
130	2, 3 or 4	9.5	22
180	2, 3 or 4	13.0	22

TABLE II. Physical requirements and test methods.

Characteristic	Requirements	Test method
Fiber identification	3.1	ASTM D276 or AATCC 20 <u>1/</u> (see 7.5)
Specific gravity	3.1	AATCC 20
Final twist	3.1	ASTM D1423
Tex (size)	Table I	ASTM D204
Ply	Table I	Visual <u>2/</u>
Breaking strength	Table I	ASTM D204
Elongation	Table I	ASTM D204
Colorfastness: Laundering (after three (3) cycles) Perspiration (acid/alkaline) Light ( 40 AFU or 170 kJ/(m <sup>2</sup> nm)@ 420 nm) Dry heat at 351°F – 376°F	3-4 (min.) 3-4 (min.) 3-4 (min.) 3-4 (min.)	AATCC 61 3A <u>3/</u> , <u>4/</u> , <u>5/</u> AATCC 15 <u>3/</u> AATCC 16.3, Option 3, <u>3/</u> AATCC 117 <u>3/</u> , <u>4/</u>
Visual shade matching	3.3	3.4
Finish	3.5	Visual
Toxicity	3.6	3.6.1

AFU – AATCC Fading Units

1/ In case of dispute, the ASTM method prevails.2/ One (1) determination shall be made per sample unit, and the results reported as “pass” or “fail”.3/ AATCC Evaluation Procedure 1, Gray Scale for Color Change.4/ The color transfer cloth evaluation shall not apply.5/ The specimen shall be dried after each laundering cycle.

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3.3 Color. The color shall be as specified in the applicable end item specification or in the contract (see 7.7).

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

3.5 Finishing materials. The finished thread shall have no chemical finishes or treatments other than those commonly used on commercial threads (such as water repellent treatment) or as specified in the contract which have been demonstrated to have no harmful 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.

3.6 Toxicity. The finished thread shall not present a health hazard and shall show compatibility with prolonged, direct skin contact when tested as specified in 3.6.1. Chemicals recognized by the Environmental Protection Agency (EPA) as human carcinogens shall not be used.

3.6.1 Toxicity test. When required (see 7.7), 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 7.2.3). If the toxicity requirement (see 3.6) can be demonstrated with historical use data, toxicity testing may not be required (see 7.7).

3.7 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.

3.8 Labeling. Each thread 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 length in yards or weight of cone, direction of twist, color, Tex, name of thread manufacturer, and nomenclature specified fiber type and construction.

4. **REGULATORY REQUIREMENTS**. Unless otherwise specified the offer/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,

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standards, and quality assurance practices, and be the same product offered for sale in the commercial marketplace. The Government reserves the right to require proof of such conformance.

5.2 Market acceptability criteria. The thread offered must have been sold to the Government or commercial market.

5.3 Visual examination. Thread shall be examined for the defects listed in Table III below.

TABLE III. Visual examination defects.

<u>Knots and splices:</u> Averaging more than one (1) full thread knot or splice per 1,000 yards.
<u>Continuous length:</u> Not in one (1) continuous length.
<u>Winding:</u> Improperly or not firmly wound, resulting in kinks, knots, entangling, or slippage during unwinding.
<u>Labels:</u> Label missing, incorrect, or illegible. Required information missing from the label.
<u>Packaging:</u> Not packaged in accordance with the contract or purchase order.

5.4. Acceptance criteria. Acceptance criteria shall be as specified in the contract or purchase order (see 7.7).

## 6. PACKAGING

6.1 Packaging. Preservation, packing, and marking shall be as specified in the contract or order (see 7.7).

## 7. NOTES

7.1 Sources of Government documents.

7.1.1 Copies of Government documents are available online at <https://quicksearch.dla.mil>.

7.2 Sources for Non-Government Documents.

7.2.1 AATCC test methods are available online at <http://www.aatcc.org>.

7.2.2 ASTM Standards are available online at <http://www.astm.org>.

7.2.3 Modified Draize Procedure: Principles and Methods of Toxicology, A Wallace Hayes

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(editor). Copies are available online at <https://www.crcpress.com>.

7.3 Intended use. The thread is intended for use in durable press items of apparel.

7.4 Standard samples. For access to standard shade samples of thread, address the contracting activity issuing the invitation for bids or request for proposal (if applicable).

7.5 Certificate of compliance. The contracting activity may select to accept a certificate of compliance for stated requirement.

7.6 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to previous issues due to the extensiveness of the changes.

7.7 Ordering data. The contract or order should specify the following:

- a. Title, number, and date of this Commercial Item Description (CID)
- b. Color required (see 3.3)
- c. When toxicity testing is required (see 3.6)
- d. Put-up required if other than specified (see 3.7)
- e. Product conformance provisions (see 5.1, 5.2)
- f. Acceptance criteria provisions (see 5.4)
- g. Packaging requirement (see 6.1)

7.8 Key words.

Durable press clothing  
Sewing  
Staple  
Stitching  
Yarn

#### MILITARY INTERESTS:

Custodian:

Army-GL  
Navy- NU  
Air Force- 11

Review Activities:

Army- MD  
Navy- MC

#### CIVIL AGENCY COORDINATING ACTIVITY:

GSA-FAS

PREPARING ACTIVITY:

DLA –CT

(Project: 8310-2018-004)

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 <https://assist.dla.mil/>.