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INCH-POUND
A-A-50195C
19 July 2016
SUPERSEDING
A-A-50195B
8 June 2007

COMMERCIAL ITEM DESCRIPTION

THREAD, ARAMID

The General Services Administration has authorized the use of this Commercial Item Description as a replacement for all federal agencies.

1. SCOPE. This Commercial Item Description covers the requirements for aramid thread.

2. CLASSIFICATION. The following Tex and deniers of thread are as specified.

2.1 Tex and deniers.

Tex	40	60	80	120	180	240	300	350	450
Denier	400	600	800	1200	1800	2400	3000	3500	4500

3. SALIENT CHARACTERISTICS.

3.1 Description. All thread shall be made of continuous multifilament aramid yarn and shall have a soft or bonded finish as specified in the contract or purchase order (see 7.5). The finished thread shall have a minimal amount of non-flame propagating, non-staining finish commonly used to facilitate sewing. Unless otherwise specified, the direction of the twist for singles shall be “S” and the plied thread shall be “Z”.

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

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

TABLE I. Physical characteristics.

Tex	Breaking strength, lbs. (min)	Elongation, % (max)
40	3.0	38
60	5.0	38
80	6.0	38
120	10.0	38
180	15.0	42
240	20.0	42
300	25.0	42
350	30.0	42
450	35.0	42

TABLE II. Physical requirements and test methods.

Characteristic	Requirement	Test method
Fiber identification	3.1	AATCC 20 or ASTM D276
Final twist: single plied	 3.1 3.1	 ASTM D204 ASTM D204
Yarn (multifilament)	3.1	Visual
Tex	Table I	ASTM D204
Breaking strength, lbs.	Table I	ASTM D204 1/, 2/
Elongation, % (max.)	Table I	ASTM D204
After aging, % (min)	85% of initial breaking strength	3.3 and ASTM D204 1/, 2/
Colorfastness (min) Laundering (after 3 cycles) Perspiration (acid/alkaline)	 3-4 3-4	 AATCC 61 1A 3/, 4/ AATCC 15 3/
Visual shade matching	3.5	3.5

1/ Testing speed shall be 12 (±0.5) inches minimum, and a 10-inch gage length unless otherwise specified shall be used (see 7.5).
2/ Five (5) determinations per sample unit.
3/ AATCC Evaluation Procedure 1, Gray Scale for Color Change
4/ The color transfer cloth evaluation shall not apply.

3.2.1 Knots. Thread Tex 120 and finer shall average not more than one (1) thread knot per 2-ounces, and thread Tex 180 and heavier shall average not more than one (1) thread knot per 4-ounces.

3.3 Aging resistance test. Five (5) specimens each, of all Tex shall be used for the aging test. The specimens shall be exposed for 15 minutes to 500 (±10) ^{o}F using an air circulating oven. Upon removal, the specimens shall be conditioned at standard atmospheric conditions, ASTM D1776/D1776M for four (4) hours and then tested for breaking strength as specified in Table II.

3.4 Color. The color shall be as specified in the applicable end item specification or in the contract (see 7.5).

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

3.6 Finished materials. The finished thread shall have no chemical finishes or treatments other than those commonly used on commercial threads 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.

3.7 Toxicity. The finished thread shall not present a health hazard and shall show compatibility with prolonged, direct skin contact when tested as specified in 5.3. Chemicals recognized by the Environmental Protection Agency (EPA) as human carcinogens shall not be used.

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 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, direction of twist, or weight of cone, color, Tex/denier, name of thread manufacturer, and nomenclature specifying soft or bonded.

3.10 Workmanship. The finished thread shall conform to the quality of product established by this document. The occurrence of defects shall not exceed the contractor's own quality assurance standards and the quality assurance standards defined by the technical data in the bid package.

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 thread provided shall meet the salient characteristics of this Commercial Item Description (CID), conform to the producer's own drawings, specifications, 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 End item examination. The visual examination for defects shall be in accordance with ANSI ASQ Z1.4 (see 7.2.4).

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

TABLE III. Visual examination defects.

Knots: Tex 120 and finer thread not more than one (1) thread knot per 2-ounces. Tex 180 and heavier not more one (1) thread knot per 4 ounces of thread.
Color: Not as specified.
Workmanship: More than one (1) full thread knot or splice per 1,000 yards; defects exceed the quality assurance standards (both contractor's and Government standards).
Labels: Label missing, incorrect, or illegible. Required information missing from the label.
Packaging: Not packaged in accordance with the contract or purchase order

5.3 Toxicity test. When required (see 7.5), 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 3.7) can be demonstrated with historical use data, toxicity testing may not be required (see 7.5).

5.4. Acceptance criteria. Acceptance criteria shall be as specified in the contract or purchase order (see 7.5).

6. PACKAGING.

6.1 Packaging. Preservation, packing, and marking should be as specified in the contract or purchase order (see 7.5).

7. NOTES.

7.1 Sources of Government documents.

7.1.1 Copies of Government documents are available online at http://quicksearch.dla.mil or from the Standardization Document Order Desk, 700 Robbins Avenue, Philadelphia, PA 19111-5094.
7.2 Sources for Non-Government Documents.

7.2.1 AATCC test methods are available online at http://www.aatcc.org or from the American Association of Textile Chemists and Colorists, P.O. Box 12215, Research Triangle Park, NC 27709-2215.

7.2.2 ASTM Standards are available online at http://www.astm.org or from ASTM INTERNATIONAL, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

7.2.3 Modified Draize Procedure: Principles and Methods of Toxicology, A Wallace Hayes (editor), are available online from http://www.taylorandfrancis.com/ or from Taylor and Francis, 7625 Empire Drive, Florence, KY 41042-2919.

7.2.4 American Society for Quality (ASQ) documents are available online at http://asq.org or from the American Society for Quality, 600 North Plankinton Avenue, Milwaukee, WI 53203.

7.3 Intended use. The threads are intended for sewing heat and flame resistant uniforms, equipage, or supportive end items.

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.

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

a. Title, number, and date of this Commercial Item Description (CID)
b. Tex and denier required (see 2.1)
c. Gauge length for breaking strength (if otherwise specified see 3.2)
d. Color required (see 3.4)
e. When toxicity testing is required (see 3.7)
f. Put-up required if other than specified (see 3.8)
g. Product conformance provisions (see 5.1)
h. Acceptance criteria provisions (see 5.4)
i. Packaging requirement (see 6.1)

7.6 Key words.

Anti G garment
Coveralls
Gloves
Jackets
Trousers
Wrist seal

MILITARY INTERESTS:

Custodian:
Army-GL
Navy- NU
Air Force- 11

Review Activities:
Army- MD
Navy- AS

CIVIL AGENCY COORDINATING ACTIVITY:

GSA-FSS

PREPARING ACTIVITY:
DLA –CT
Agent – Army-GL

Project Number: 8310-2016-003

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/.