



PIA-T-38377
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Renamed from
MIL-T-38377A(USAF)
28 September 1978

The following commercial specification is adopted from the military document referenced without change to the content.

Note: Although many military quality and inspection specifications, drawings and standards have been discontinued or deleted, most have been replaced by industry and commercial documents. When the specification refers to a discontinued or deleted document, you should refer to the procurement document or your contracting officer for guidance.

TAPE, TEXTILE, ARAMID

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 establishes requirements for three types of aromatic polyamide tape (ribbon).

1.2 **Classification.** The tape shall be of the following types, as specified (see 6.2).

Type I - Breaking strength, 300 pounds.

Type II - Breaking strength, 1,000 pounds.

Type III - Breaking strength, 3,000 pounds.

2. APPLICABLE DOCUMENTS

2.1 **Issues of documents.** The following documents of the issue in effect on date of invitation for bids or request for proposal form a part of this specification to the extent specified herein.

SPECIFICATIONS

MILITARY

MIL-W-43334 Webbing and Tape, Textile, Packaging and Packing Of

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STANDARDS

FEDERAL
FED-STD-191

Textile Test Methods

MILITARY
MIL-STD-105

Sampling Procedures and Tables for
Inspection by Attributes

(Copies of specifications and standards required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

2.2 **Other publications** The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

FEDERAL TRADE COMMISSION

Textile Fiber Products Identification Act, Effective 3 March 1960

(Application for copies should be addressed to the Federal Trade Commission, Washington, D.C. 20580.)

3. REQUIREMENTS

3.1 **Yarn**. The yarn shall be a nonmelting, aromatic polyamide. The yarn shall not begin to char at a temperature below 6750F when tested as specified in Table I.

3.2 **Weave**.

3.2.1 **Body**. The body weave shall be a conventional 2-up and 2-down right-hand twill.

3.2.2 **Selvage**. Unless otherwise specified, the selvage weave for Type I shall be a double plain weave of a conventional hatband type. Types II and III shall have no additional selvage ends.

3.3 **Color**. The tape shall be Olive Green,

3.4 **Construction and physical properties**. The tape shall conform to the properties specified in Table II.

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Table I. Testing of component.

Component	Characteristic	Requirement reference	Test method of Fed Std 191 or test reference
Yarn	Denier	Table 11	4021 <u>1/</u>
	Ply	Table II	Visual <u>2/</u>
	Twist	Table 11	4054
	Carbonization	3.1	1534 <u>3/</u>

1/ Denier shall be calculated as follows, and shall be reported to the nearest whole number:

$$\text{Denier} = \frac{\text{Weight of specimen in grams} \times 9842.5}{\text{Length of specimen in yards}}$$

2/ One determination per sample unit and results reported as pass or fail.

3/ ~~Supplier's~~ Supplier's certificate of compliance showing that the yarn identified in 6.3 was used may be submitted in lieu of test method.

3.5 **Width.** The width of the tape shall be 2 ± 0.0625 inches

3.6 **Length and put-up.** Unless otherwise specified, tape shall be put up on spools of 120 yards minimum and 150 yards maximum length. No spool shall contain more than three lengths, and no length shall be less than 40 yards (see 6.2).

3.7 **Identification of product.** Each spool shall have a ticket (identification tag) attached with not finer than Apply cotton string doubled to not less than 6 inches. The ticket shall be made of paperboard not less than 0.020 inch in thickness and the color shall be manila or light in intensity to permit easy reading of printed, stamped, or typed markings. Handwritten entrees shall be prohibited. The ticket shall have clipped corners at the end where a reinforcing patch (with or without a metal eyelet) is firmly affixed for attaching the tying strings. The ticket shall be legibly marked with water-insoluble ink with the following information:

- a. Nomenclature
- b. Number and date of this specification
- c. Type
- d. Yardage
- e. Manufacturer's identification number
- f. Contract number; name of contractor
- g. Stock number
- h. Date of manufacturer (month and year)
- i. Name of manufacturer (if not the same as contractor)

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Table II. Construction and physical requirements.

Requirement	Type I	Type II	Type III
Weight (yds/lbs) min	100	30	12
Breaking strength, lb:			
Unaged (min)	300	1,000	3,000
Aged (% of unaged) (min)	85	85	85
Elongation, % (min)	12.0	12.0	-
Ends, min:			
Total	150	480	358
Selvage	16	-	-
Warp yarns, denier and ply	200/1	200/1	200/4
Turns per inch, single	6.5-8.5	4.0-6.0	-
Turns per inch, ply	-	-	2.5-3.5
Filling picks per inch, min	70	34	24
Filling yarn, denier and ply	100/1	200/2	200/4
Turns per inch, single	6.5-8.5	-	-
Turns per inch, ply	-	2.0-4.0	2.5-3.5
Air permeability (ft ³ /min/ft ²)	75+20		

3.8 Fiber identification. Each spool of tape shall be labeled, ticketed, or invoiced for fiber content in accordance with the Textile Fiber Products Identification Act, effective 3 March 1960.