



PIA-T-1001A
03 December 2008

Superseding
PIA-T-1001
30 November 1998

The following commercial specification is an original Parachute Industry Association specification.

TAPE, TEXTILE, NYLON, PARACHUTE CONSTRUCTION

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 covers one type of nylon tape used in the manufacture of parachute bindings.

2. CLASSIFICATION

2.1 Classification. The tape shall be manufactured in a 1 inch width.

3. SALIENT CHARACTERISTICS

3.1 Materials. The tape shall be manufactured with nylon 6 or 6,6 yarns on a shuttleless narrow fabric loom.

3.1.1 Yarns. The nylon yarn used in the manufacture of the tape shall be a bright, high tenacity, light and heat resistant polyamide. Nylon 6 or 6,6 shall be used as specified in the procurement document. If the type of nylon is not specified either type may be used. The yarn shall not be bleached.

3.1.2 Denier. The nominal size of the warp yarns shall be 210 or 420 denier. The filling yarns shall be 420 denier nylon. The catch-cord shall be 30 to 100 denier nylon.

3.1.3 Identification yarn. One black nylon or polyester identification yarn shall be interwoven in the center of the tape. The size of the marker yarn shall be similar to the natural warp yarns and shall be woven as detailed in 3.2.

3.2 Weave. The tape shall be woven as a plain, 1 up/1 down weave. The warp ends shall weave 2 ends as 1 if 210 denier yarns are used or 1 end as 1 if 420 denier yarns are used. The filling shall be inserted as two yarns per shed and shall traverse the full width of the webbing. Filling shall be held at the edge by a catch-cord yarn interlacing with the filling as depicted in FIGURE 1.

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3.3 Construction and physical properties. The webbing shall conform to the construction and physical properties of TABLE I when tested as specified in 4.2.

3.4 Color. The color of the tape and its referenced standard shall be as specified by the procuring activity or order.

3.4.1 Dyeing. When dyed tape is required, the tape shall be yarn or piece dyed.

3.4.2 Visual shade matching. The color of the dyed tape shall match the standard when viewed using the AATCC Evaluation Procedure 9, Option A, with sources simulating artificial daylight D75 illuminate with color temperature of $7500 \pm 200K$, with illumination of 100 ± 20 foot candles, and shall be a good match to the standard under incandescent lamplight at $2856 \pm 200K$.

3.4.3 Colorfastness. The dyed webbing shall show colorfastness to laundering and crocking as follows:

Characteristic	Rating, Min
Laundering ^{1/} :	
Color change	2-3
Staining	2-3
Crocking ^{2/} :	
Dry	3.5
Wet	3.5
Testing shall be specified in TABLE III	

Notes:

^{1/} Rated using the AATCC Evaluation Procedure 1, Gray Scale for Color Change and AATCC Evaluation Procedure 2, Gray Scale for Staining

^{2/} Rated using the AATCC Evaluation Procedure 8, AATCC9-Step Chromatic Transference Scale.

3.5 Colorfastness of identification yarns. The identification yarn shall have a colorfastness to crocking of no less than 2.5 as rated using the AATCC Evaluation Procedure 8, AATCC9-Step Chromatic Transference Scale when tested as specified in TABLE II.

3.6 Curvature. The tape shall show no more lateral curvature than $\frac{1}{4}$ " within a yard when tested as specified in 4.2.1.

3.7 pH. The pH value of the water extract of the finished webbing shall be no less than 5.5 nor more than 9.0 when tested as specified TABLE III.

3.8 Date of Manufacture. When required by the procurement document the textile manufacturer shall properly identify the age of the textile materials by placing a tag on the finished goods or label on the containers identifying the specification to which the material is manufactured, the lot number and the date of manufacture. The date of manufacture is defined as the date (month and year) of the last manufacturing process that affects the physical characteristics of the material.

3.9 Length and put-up. The put-up of the tape and the minimum length of piece shall be as specified in the procurement document. If not specified, each roll shall contain 100 to 144