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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 the 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.** The tape shall be manufactured in a 1 inch width.

3. **SALIENT CHARACTERISTICS.** The tape shall be manufactured with nylon 6 or 6,6 yarns on a shuttleless narrow fabric loom.

3.1 Materials.

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 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 paragraph 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 is 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. The filling shall be held at the edge by a catch cord yarn interlacing with the filling as depicted in figure 1.

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.** Unless otherwise specified by the contract or purchase order the color of the tape shall be natural except for the identification yarns. If color is specified, specific colorfastness, appropriate test methods and color standard shall be specified in the contract or purchase order.

3.4.1 **Color matching.** If color is specified the color of the dyed webbing shall match the standard sample when viewed under filtered tungsten lamp which approximates artificial daylight having 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 $2300 \pm 200\text{K}$.

3.5 **Colorfastness of identification yarns.** The identification yarn shall have a colorfastness to crocking of no less than 2.5 on the AATCC 9 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 **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 yards. No roll shall contain more than two pieces, and no piece shall be less than 40 yards in length.

TABLE I. Physical Properties

Property	Requirements
Width, Inch	1 $\pm 1/16$ "
Yarn Ply:	
Warp	1
Fill	1
Yarns	
Warp (Total width), Min	
210 denier warp	201
420 denier warp	101
Filling / Picks per inch, Min	46 (23 doubled)
Weight, Oz/Lin. Yd (Max)	0.35
Thickness, Inch	0.010 - 0.030
Breaking Strength, lb (Min)	600
Elongation, % (Min)	16