



PIA-W-1003
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The following commercial specification is an original Parachute Industry Association specification.

WEBBING, TEXTILE, NYLON TUBE EDGE 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. The specification covers one type of tubular edge nylon webbing used in the manufacture of load bearing systems.

2. **CLASSIFICATION.** The webbing shall be similar to Type XXVI of PIA-W-4088 and shall be manufactured in a 1 ³/₄ inch (nominal) width.

3. **SALIENT CHARACTERISTICS.** The webbing 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 webbing 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 and twist of the warp, fill, identification and lock stitch yarns shall be as specified in Table I.

3.1.3 **Pattern identification yarn.** Two yellow identification yarns, cable number 80068, shall be woven in the center of the warp. The size of the marker yarn shall be similar to the natural warp yarn and shall be woven as detailed in paragraph 3.2.

3.1.4 **Shuttleless loom identification.** The webbing shall be woven with a knit edge containing a black lock stitch yarn as shown in Figure 1. The yarn shall be 1/210 - 1/500 denier (nominal) nylon or polyester color sealed black.

3.1.5 **Nylon 6 identification.** When nylon 6 is utilized the woven edge of the webbing shall contain a red marker yarn, cable No. 80081.

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

3.4 Color. The color of the webbing and referenced color standard shall be as specified in the contract, purchase order or procurement document.

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° ±200°K, with illumination of 100 ±20 foot candles, and shall be a good match to the standard sample under incandescent lamplight at 2300° ±200°K.

3.5 Colorfastness.

3.5.1 Dyed webbing. The dyed webbing shall show fastness to light, laundering and crocking equal to or better than the standard sample. If no standard sample is referenced the webbing shall show a colorfastness to light and laundering as follows:

Characteristic	Rating, Min	Reference Scale
Light (Fade)	2-3	AATCC Gray Scale for Color Change
Laundering Color Stain	2-3	AATCC Gray Scale for Color Transference AATCC Gray Scale for Color Change
Shade Change	2-3	
Crocking - Wet and Dry	3-4	AATCC Gray Scale for Color Transference
Testing shall be as specified in 4.2		

3.5.2 Identification yarn. The dyed identification yarn shall show fastness to light and laundering equal to or better than the standard sample. If no standard sample is referenced the identification yarns shall show a colorfastness to light and laundering as follows:

Characteristic	Rating, Min	Reference Scale
Light (Fade)	2-3	AATCC Gray Scale for Color Change
Laundering Color Stain	2-3	AATCC Gray Scale for Color Transference AATCC Gray Scale for Color Change
Shade Change	2-3	
Testing shall be as specified in 4.2		

3.6 Curvature. The webbing shall show no more lateral curvature than ¼” within a yard when tested as specified in Table IV.