



AEROSPACE MATERIAL SPECIFICATION

AMS3815™**REV. E**

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Superseding AMS3815D

Braid, Flat, Nylon, Electrical Tying
Synthetic Rubber Coated

RATIONALE

This document has been determined to contain basic and stable technology which is not dynamic in nature.

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Documents

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1. SCOPE:

- 1.1 Form: This specification covers synthetic-rubber-coated nylon in the form of flat braid.
- 1.2 Application: Primarily for tying and lacing electrical wire harness assemblies, especially for miniature devices or where maximum fungus resistance is required.
- 1.3 Classification: This specification covers four classes, by size, as follows:

Size 15 - 15 lb (66.5 N) minimum breaking strength

Size 25 - 25 lb (110 N) minimum breaking strength

Size 50 - 50 lb (220 N) minimum breaking strength

Size 80 - 80 lb (355 N) minimum breaking strength

2. APPLICABLE DOCUMENTS: The following publications form a part of this specification to the extent specified herein. The latest issue of Aerospace Material Specifications shall apply. The applicable issue of other documents shall be as specified in AMS 2350.

- 2.1 SAE Publications: Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096.

2.1.1 Aerospace Material Specifications:

AMS 2350 - Standards and Test Methods

- 2.2 ASTM Publications: Available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

ASTM D259 - Woven Tapes

- 2.3 U.S. Government Publications: Available from Commanding Officer, Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120.

- 2.3.1 Military Standards:

MIL-STD-794 - Parts and Equipment, Procedures for Packaging and Packing Of

3. TECHNICAL REQUIREMENTS:

- 3.1 Material and Fabrication:

- 3.1.1 Yarn: Braid shall be made from high-tenacity, bright, continuous-filament nylon yarn, free from weighting materials, twisted 3/4 to 1 turn per in. (0.03 to 0.04 turns/mm).
- 3.1.2 Impregnation: Finished braid shall contain 15 - 25% by weight of a non-flaking, fungus-resistant, synthetic dispersion. No fungicide containing mercury or copper shall be used.
- 3.1.3 Construction: Shall be as specified in Table I, determined in accordance with ASTM D259.

TABLE I

	Size Designation			
	15	25	50	80
Nominal Width, in.	0.050	0.060	0.080	0.120
Nominal Thickness, in.	0.007	0.007	0.011	0.011
Yards per lb, min	2800	2000	900	600
Total Ends, min	17	17	17	25
Picks per in., min	22	22	20	20

TABLE I (SI)

	Size Designation			
	15	25	50	80
Nominal Width, mm	1.25	1.50	2.00	3.00
Nominal Thickness, mm	0.18	0.18	0.28	0.28
Metres per kg, min	5645	4030	1815	1210
Total Ends, min	17	17	17	25
Picks per mm, min	0.87	0.87	0.70	0.70

- 3.1.4 Color: Shall be natural.

- 3.2 Properties: Braid shall conform to the following requirements: