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AEROSPACE MATERIAL SPECIFICATION

AMS 3798/9A

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Superseding AMS 3798/9

Submitted for recognition as an American National Standard

WEBBING, LOW MODULUS ARAMID
1-23/32 (44) Wide, 6500 (28,913) Breaking Strength
Herringbone Twill Resin Treated

THIS REVISION CONTAINS ONLY EDITORIAL CHANGES.

1. SCOPE:

- 1.1 Form: This specification covers one width and one strength of low-modulus aramid webbing.
- 1.2 Application: Primarily for use in construction of parachutes.
- 1.3 Classification: 1-23/32 inches (44 mm) wide low-modulus aramid webbing having 6500 pounds force (28,913 N) breaking strength.

2. APPLICABLE DOCUMENTS: See AMS 3798.

3. TECHNICAL REQUIREMENTS:

- 3.1 Basic Specification: The complete requirements for procuring the webbing described herein shall consist of this document and the latest issue of the basic specification, AMS 3798.

3.2 Construction and Properties:

- 3.2.1 Yarn: Yarn used in weaving the webbing shall be low-modulus aramid with a carbonization (char) temperature not lower than 355°C (671°F).
- 3.2.1.1 Denier and Filament Count: The yarn shall be 1200 denier \pm 15 and shall consist of 600 filaments \pm 15.
- 3.2.1.2 Ply: Final warp yarn shall be not less than 2 ply and filling yarn shall be not less than 2 ply.

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3.2.1.3 Twist: The final ply of yarn shall have not less than 2.5 turns per inch (25.4 mm) twist. The required denier and number of single yarns shall be twisted together (plied) in one operation.

3.2.2 Webbing: Shall conform to the following requirements:

3.2.2.1 Weave: Shall be a 5-up, 1-down, 1-up, 5-down herringbone twill with one reversal at the center of the webbing. The weave is shown in Figure 1.

3.2.2.2 Color: Shall be FED-STD-595, Olive Green 106 solution dyed.

3.2.2.3 Width: Shall be 1.72 inches \pm 0.06 (43.7 mm \pm 1.5).

3.2.2.4 Thickness: Shall be 0.090 to 0.120 inch (2.29 to 3.05 mm).

3.2.2.5 Weight: Shall not exceed 3.0 ounces/yard (93 g/m).

3.2.2.6 Breaking Strength: Shall be not less than 6500 pounds force (28,913 N) unaged and not less than 85% of the unaged strength after aging (See 4.1).

3.2.2.7 Thread Count: Total warp ends (face and back) shall be not less than 272. Filling picks shall be not less than 17 per inch (25.4 mm).

3.2.2.8 Resin Treatment: The webbing shall have an abrasion protective resin treatment. Treatment shall be polyvinyl butyral plasticized with butyl ricinoleate applied by water dispersion, dried, and cured to form a firmly adherent and evenly distributed deposit or coating on the yarns of the webbing. The curing of the resin shall be conducted within the range 115° – 180°C (239° – 356°F).

3.2.2.9 Extractable Matter: After resin treatment, the webbing shall contain not more than 8.5% by weight of matter extractable in methyl ethyl ketone.

3.3 Length and Put-up: Webbing shall be furnished in rolls containing 90 – 110 yards (82 – 101 m). No roll shall contain more than 3 pieces and no piece shall be less than 10 yards (9 m) in length.

4. QUALITY ASSURANCE PROVISIONS: See AMS 3798 and the following:

4.1 Except for breaking strength, the physical and chemical values specified apply to the average of the determinations made on a sample unit for test purposes as specified in the applicable test methods. For breaking strength, the lot is not acceptable if the value of any individual determination is lower than the required minimum. The sample unit shall be as specified in the basic specification.

5. PREPARATION FOR DELIVERY: See AMS 3798.

6. ACKNOWLEDGMENT: See AMS 3798.

7. REJECTIONS: See AMS 3798.

8. NOTES: See AMS 3798.