



AEROSPACE MATERIAL SPECIFICATION

AMS3796™

REV. B

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Superseding AMS3796A

Webbing, Nylon, Aircraft Arresting

RATIONALE

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

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1. SCOPE:

1.1 Form: This specification and its supplementary detail specifications cover two types of nylon and one type of nylon/polyester in the form of webbing.

1.2 Application: Primarily for use in land-based aircraft arresting system.

1.3 Classification: The webbing shall be classified by yarn composition and breaking strength as shown in the title of the detail specification.

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 D123 - Terminology Relating to Textile Materials

ASTM D1777 - Measuring Thickness of Textile Materials

2.3 U.S. Government Publications: Available from Commanding Officer, Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120 except as specified in 2.3.4.

2.3.1 Federal Standards:

FED-STD-4 - Glossary of Textile Imperfections
FED-STD-191 - Textile Test Methods

2.3.2 Military Specifications:

MIL-W-43334 - Webbing and Tape, Textile, Packaging and Packing of

2.3.3 Military Standard:

MIL-STD-105 - Sampling Procedures and Tables for Inspection by
Attributes

2.3.4 Other Publications: Available from Federal Trade Commission, Washington, DC 20580.

Textile Fiber Products Identification Act, Rules and Regulations

3. TECHNICAL REQUIREMENTS:

3.1 Detail Specification: The requirements for a specific webbing shall consist of all requirements specified herein in addition to the requirements specified in the applicable detail specification. In case of conflict between requirements of this specification and requirements of the applicable detail specification, requirements of the detail specification shall govern.

3.2 Material:

3.2.1 Webbing: Shall be woven from bright, high tenacity, light and heat resistant yarn of material specified in the applicable detail specification.

3.2.2 Resin: The resin used to treat the webbing shall consist of polyvinyl butyral plasticized with butyl ricinoleate and pigmented with fine carbon black. It shall be applied by water dispersion to produce a uniform black color.

3.3 Properties of Yarn: Shall be as specified in the applicable detail specification, determined in accordance with the following test methods:

Fiber Identification	4.5.1.1
Melting Point	4.5.1.2
Denier	4.5.1.3
Ply	Visual
Twist	FED-STD-191, Method 4054

- 3.4 Properties of Webbing: Shall be as specified in the applicable detail specification, determined in accordance with 4.5.
- 3.5 Quality: Webbing, as received by purchaser, shall be clean, evenly woven, and free from foreign materials and from imperfections detrimental to usage of the webbing.
- 3.5.1 Imperfections: Acceptability of each lot of webbing shall be based on defects defined in FED-STD-4 and as specified in Table I herein; the term "clearly visible" shall mean visible at the normal inspection distance of 3 ft (1 m).
- 3.5.2 Yard-by-Yard (Metre-by-Metre) Examination: The required length of each piece shall be inspected prior to the resin treatment and visual defects classified as listed in Table I. The defects shall be counted regardless of their proximity to each other, except where two or more defects represent a single local condition of the webbing, in which case only the more serious defect shall be counted. A continuous defect shall be counted as one defect for each warp-wise yard (metre), or fraction thereof, in which the defect occurs. The lot shall be unacceptable when one or more critical defects are found in the same sample. The acceptance quality level (AQL) shall be 1.0 major and 2.5 total (major and minor defects combined) defects per 100 linear yd (90 linear m). The lot size shall be expressed in units of 1 linear yd (1 linear m) each. There shall be no more than five pieces in any one lot. The sample size shall be in accordance with MIL-STD-105, Inspection Level III.

TABLE I

Classification of Defects

Defects	Description	Critical	Major	Minor
Abrasion marks	Resulting in broken filaments over 1 in. (25 mm) in any direction and sufficient to obscure the identity of an individual yarn.		X	
	Resulting in broken filaments 1 in. (25 mm) and under in any direction and sufficient to obscure the identity of an individual yarn.			X
Broken or missing pick	Occurring separately or in combination for two or more adjacent picks on the same side of the webbing.	X		

TABLE I

Classification of Defects Continued

Defects	Description	Critical	Major	Minor
Broken or missing end(s)	Occurring separately or in combination for two or more picks not adjacent in 1 linear yd (1 linear m) on the same side of webbing.		X	
	Single pick regardless of frequency.			X
	Two or more adjacent ends over 6 in. (150 mm) in length or single end over 12 in. (300 mm) in length.	X		
	Two or more adjacent ends under 6 in. (150 mm) but over 3 in. (75 mm) in length or a single end under 12 in. (300 mm) but over 6 in. (150 mm) in length.		X	
Coarse or light filling bar	Two or more adjacent ends under 3 in. (25 mm) in length but over 1 in. (25 mm) or a single end under 6 in. (150 mm) but over 1 in. (25 mm).			X
	Resulting in visible difference in thickness of webbing extending for over 1/2 in. (12.5 mm) in the length direction for over 50% of the width.	X		
	Resulting in visible differences in thickness of webbing extending for over 1/4 in. (6.2 mm) but under 1/2 in. (12.5 mm) in the length direction for over 50% of the width.		X	