SAE The Engineering Society For Advancing Mobility Land Sea Air and Space®
INTERNATIONAL
400 Commonwealth Drive, Warrendale, PA 15096-0001

AEROSPACE MATERIAL SPECIFICATION

SAE AMS 3796/2A

Issued 1 JAN 1987
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Superseding AMS 3796/2

Submitted for recognition as an American National Standard

WEBBING, NYLON, AIRCRAFT ARRESTING 130,000 Pounds (578 kN)

This specification has been declared "NONCURRENT" by the Aerospace Materials Division, SAE, as of July, 1992. It is recommended, therefore, that this specification not be specified for new designs.

This cover sheet should be attached to the initial issue of the subject specification.

"NONCURRENT" refers to those materials which have previously been widely used and which may be required on some existing designs in the future. The Aerospace Materials Division, however, does not recommend these as standard materials for future use in new designs. Each of these "NONCURRENT" specifications is available from SAE upon request.

PREPARED UNDER THE JURISDICTION OF AMS COMMITTEE “CP".

AN AMERICAN NATIONAL STANDARD

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AMS 3796/2

Issued 1-1-87

WEBBING, NYLON, AIRCRAFT ARRESTING 130,000 lb (578 kN)

1. SCOPE:

1.1 Form: This specification covers one type of nylon in the form of webbing.

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

1.3 Classification: Nylon webbing having average breaking strength of 130,000 lb (578 kN).

2. APPLICABLE DOCUMENTS: See AMS 3796.

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 3796.

3.2 Construction and Properties:

3.2.1 Yarn: Shall be as specified in Table I and the following:

3.2.1.1 Fiber Identification: Shall be nylon, prepared from hexamethylene diamine and adipic acid, or its derivatives.

3.2.1.2 Melting Point: Shall be not lower than 245°C (475°F).

3.2.1.3 Denier: Shall be 840 or 1260.

3.2.2 Webbing: Shall be as specified in Table II and as follows:

3.2.2.1 Weave: Shall be as shown in Fig. 1.

3.2.2.2 Edge Wear Markers: There shall be two yellow marker ends in the center of each selvage stuffer as shown in Fig. 1. The marker shall be an 840 denier 5-ply yarn.

3.2.2.3 Length: Shall be as specified by purchaser.

4. QUALITY ASSURANCE PROVISIONS: See AMS 3796.

5. PREPARATION FOR DELIVERY: See AMS 3796.

6. ACKNOWLEDGMENT: See AMS 3796.

7. REJECTIONS: See AMS 3796.

8. NOTES: See AMS 3796.

TABLE I

Characteristics of Yarn

	Requirements
Ply, min	
Ground	3 (840 denier) or 2 (1,260 denier)
Binder	3 (840 denier) or 2 (1,260 denier)
Stuffer	7 (840 denier) or 5 (1,260 denier)
Filling	7 (840 denier) or 4 (1,260 denier)
Twist, turns per in. (25.4 mm)	
Ground	2.0 to 3.0
Binder	2.0 to 3.0
Stuffer	1.0 to 2.0
Filling	1.0 to 2.0

TABLE II

Properties

Requirements	
Width 1/ 2/ 3/	7.937 in. +0.125, -0.062 (198.0 mm +3.0, -1.5)
Thickness	0.340 in. ± 0.010 (8.65 mm ± 0.25)
Weight, max	50 oz per linear yd (1,550 g/m)
Breaking Strength, min	
Average	130,000 lb (578 kN)
Single Determination	125,000 lb (556 kN)
Breaking Strength, Sewed Loops	4/
Ends in Warp, min	
Ground	558
Binder	136
Stuffer	1460 (840 denier) or 1962 (1260 denier)
Yellow Marker	4
Filling Yarns per in. (25.4 mm), min	13
Extractable Matter	3.1 to 8.5% by wt.
Stiffness (angle subtended), max	35 deg
Color (after resin treatment)	Black

l/ Nonconformance shall be based on a length greater than 12 in. (305 mm).
2/ Single determination.
3/ A maximum of two single determinations per roll may deviate not more than -1/8 in. (-3 mm).
4/ Three of five specimens shall have a breaking strength not lower than 110,000 lb (489 kN) each; the other two shall have a breaking strength not lower than 100,000 lb (444.8 kN). The width of the sewed loop shall be not more than 8.125 in. (206.5 mm) at any point along the entire length of the loop. Any roll not meeting this requirement shall be unacceptable.