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INTERNATIONAL
400 Commonwealth Drive, Warrendale, PA 15096-0001

AEROSPACE MATERIAL SPECIFICATION

SAE AMS 3904/10A

Issued APR 1989
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Superseding AMS 3904/10

Submitted for recognition as an American National Standard

(R)

Roving, Organic Fiber (Para-Aramid) Intermediate Modulus 15,000 Denier (16,700 Dtex), 7.0% Finish

1. SCOPE:

1.1 Form:

This specification covers one type of organic (para-aramid) fiber in the form of roving. The product shall be formed as a number of ends, tows, or strands collected into a parallel bundle with little or no twist.

1.2 Classification:

Organic fiber 15,000 denier (16,700 dtex) roving with 20.5 gpd (180.9 cN/tex) nominal tensile strength and 625 gpd (5515 cN/tex) nominal tensile modulus and a high lubricity finish for use in cables and cordage requiring high tensile strength and moderate modulus of elasticity in tension. This shall be a 10 end roving.

2. APPLICABLE DOCUMENTS:

See AMS 3904.

3. TECHNICAL REQUIREMENTS:

3.1 Basic Specification:

The complete requirements for procuring organic fiber roving described herein shall consist of this document and the latest issue of the basic specification, AMS 3904.

3.2 Properties:

Shall be as follows; no individual value shall be less than 90% of the lot minimum values specified in 3.2.1 and 3.2.2:

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3.2.1	Tensile Strength, minimum	18.8 gpd (165.9 cN/tex)
3.2.2	Modulus of Elasticity, minimum	575 gpd (5075 cN/tex)
3.2.3	Linear Density	15,000 denier ± 450 (16,700 dtex ± 500)
3.2.4	Fiber Finish, by weight	7.0% ± 2.0
3.2.5	Catenary, maximum	6 inches per 50 feet (10 mm/m)

3.3 Mechanical Splices:

The number of spliced ends within a ball of roving shall not exceed twice the roving weight of the ball in pounds (the roving weight of the ball in kilograms). There shall be no more than one spliced end in the same perpendicular plane for roving. Distance between splices shall be not less than 200 yards (183 m).

4. QUALITY ASSURANCE PROVISIONS:

Shall be in accordance with AMS 3904 and as follows:

4.1 Acceptance Tests:

Shall include tensile strength (3.2.1), modulus of elasticity (3.2.2), linear density (3.2.3), finish (3.2.4), and catenary (3.2.5).

5. PREPARATION FOR DELIVERY:

See AMS 3904.

6. ACKNOWLEDGMENT:

See AMS 3904.

7. REJECTIONS:

See AMS 3904.

8. NOTES:

See AMS 3904.