

AEROSPACE  
MATERIAL  
SPECIFICATION

**AMS 3901/5A**  
Superseding AMS 3901/5

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ROVING, ORGANIC FIBER (PARA-ARAMID), HIGH MODULUS  
OR 450,000 (3100) Tensile Strength, 17,500,000 (120) Tensile Modulus  
7100 Denier, 0.6% Finish

1. SCOPE:

1.1 Form: This specification covers one type of organic fiber in the form of roving. The product shall be formed as five ends of 1420 denier yarn (AMS 3901/4) collected into an approximately parallel arrangement without twist.

1.2 Classification: Organic 7100 denier roving with 450,000 psi (3100 MPa) tensile strength and 17,500,000 psi (120 GPa) tensile modulus for use in filament winding requiring high tensile strength and high modulus of elasticity in tension.

2. APPLICABLE DOCUMENTS: See AMS 3901.

3. TECHNICAL REQUIREMENTS:

3.1 Basic Specification: The complete requirements for procuring the organic roving described herein shall consist of this document and the latest issue of the basic specification, AMS 3901.

3.2 Properties: Shall be as follows; no individual package, based on the average  $\bar{\sigma}$  of five determinations, shall have less than 90% of the lot minimum values specified in 3.2.1 and 3.2.2:

3.2.1 Tensile Strength, min  $\bar{\sigma}$  450,000 psi (3100 MPa)

3.2.2 Modulus of Elasticity, min  $\bar{\sigma}$  17,500,000 psi (120 GPa)

3.2.3 Denier  $\bar{\sigma}$  7100  $\pm$  710

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