

AEROSPACE
MATERIAL
SPECIFICATION

AMS 3901/1A
Superseding AMS 3901/1

Issued 6-1-74
Revised 1-1-85

YARN, ORGANIC FIBER (PARA-ARAMID), HIGH MODULUS
OY 390,000 (2690) Tensile Strength, 18,000,000 (125) Tensile Modulus
195 Denier, 0.6% Finish

1. SCOPE:

1.1 Form: This specification covers one type of organic fiber in the form of yarn. The product shall be formed as a multiplicity of filaments drawn together and gathered into an approximately parallel arrangement.

1.2 Classification: Organic 195 denier yarn with 390,000 psi (2690 MPa) tensile strength and 18,000,000 psi (125 GPa) tensile modulus for use in general purpose composites 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 yarn 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 of three 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 390,000 psi (2690 MPa)
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3.2.2 Modulus of Elasticity, min 18,000,000 psi (125 GPa)

3.2.3 Denier 195 ± 20

3.2.4 Fiber Finish, by weight 0.6% ± 0.6

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