

SAE The Engineering Society
For Advancing Mobility
Land Sea Air and Space®

400 COMMONWEALTH DRIVE, WARRENDALE, PA 15096

AEROSPACE MATERIAL SPECIFICATION

Submitted for recognition as an American National Standard

AMS 3904/4A

Issued 4-15-78

Revised 4-1-89

Superseding AMS 3904/4

YARN, ORGANIC FIBER (PARA-ARAMID)
Intermediate Modulus
1000 Denier, 1.5% Finish
For Weaving

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 fiber 1000 denier yarn with 390,000 psi (2689 MPa) tensile strength and 8,500,000 psi (59 GPa) tensile modulus for use in weaving requiring high tensile strength and moderate modulus of elasticity in tension.

2. APPLICABLE DOCUMENTS: See AMS 3904.

3. TECHNICAL REQUIREMENTS:

- 3.1 Basic Specification: The complete requirements for procuring organic yarn 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:
- | | |
|--------------------------------------|---|
| 3.2.1 Tensile Strength, minimum | 390,000 psi (2689 MPa) |
| 3.2.2 Modulus of Elasticity, minimum | 8,500,000 psi (59 GPa) |
| 3.2.3 Denier | 1000 ± 60 |
| 3.2.4 Fiber Finish, by weight | 1.5%, + 1.0, - 1.25 |
| 3.2.5 Fiber Density | 0.052 pound/cubic inch ± 0.001
(1.44 g/cm ³ ± 0.03) |

SAE Technical Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

AMS documents are protected under United States and international copyright laws. Reproduction of these documents by any means is strictly prohibited without the written consent of the publisher.