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AEROSPACE MATERIAL SPECIFICATION

Submitted for recognition as an American National Standard

AMS 3904/9

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YARN, ORGANIC FIBER (PARA-ARAMID)
Intermediate Modulus
3000 Denier, 0.9% Finish
For Non-Apparel Ballistic Applications

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 3000 denier yarn with 390,000 psi (2689 MPa) tensile strength and 8,500,000 psi (59 GPa) tensile modulus for use in weaving into fabric for non-apparel ballistic applications 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: Lot values shall be as follows:

- | | |
|--------------------------------------|---|
| 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 | 3000 \pm 200 |
| 3.2.4 Fiber Finish, by weight | 0.9% \pm 0.5 |
| 3.2.5 Fiber Density | 0.052 pound/cubic inch \pm 0.001
(1.44 g/cm ³ \pm 0.03) |

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