SAE The Engineering Resource For Advancing Mobility®
400 COMMONWEALTH DRIVE WARRENDALE PA 15096

AEROSPACE MATERIAL SPECIFICATION

AMS 3892/7

Issued 7-1-84
Revised

TOW OR YARN, CARBON (GRAPHITE) FIBERS For Structural Composites GF (OX) 400 (2760) Tensile Strength, 33 (228) Tensile Modulus

1. SCOPE:

1.1 Form: This specification covers one type of continuous multifilament carbon (graphite) fibers in the form of a tow or yarn (when twisted). The weight per unit length of the tow or yarn is governed by the filament count which is identified by the supplier's grade or material designation.

1.2 Classification: Carbon (graphite) tow or yarn, derived from a polyacrylonitrile precursor, with typical 400,000 psi (2760 MPa) tensile strength and 33,000,000 psi (228 GPa) tensile modulus for use in polyimide matrix structural composites or others which may be exposed to 315°C (600°F) thermal conditions in air and which require high tensile strength and moderate modulus of elasticity in tension.

2. APPLICABLE DOCUMENTS: See AMS 3892.

3. TECHNICAL REQUIREMENTS:

3.1 Basic Specification: The complete requirements for procuring the carbon (graphite) tow or yarn described herein shall consist of this document and the latest issue of the basic specification, AMS 3892.

3.2 Storage Life: The product shall meet the interlaminar shear strength requirements of this specification when tested at any time up to 6 months from date of receipt by purchaser provided it has been stored at room temperature in the original closed container.

3.3 Oxidation Resistance: The fibers shall not undergo a weight loss exceeding 2.5% when exposed at 375°C ± 3 (705°F ± 5) for 24 hr ± 0.1, or 5% when exposed at 315°C ± 3 (600°F ± 5) for not less than 500 hours.

REAFFIRMED 10/91

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