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400 COMMONWEALTH DRIVE, WARRENDALE, PA 15096

AEROSPACE MATERIAL SPECIFICATION

Submitted for recognition as an American National Standard

AMS 3892/11

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TOW, CARBON FIBER
For Structural Composites
450 (3100) Tensile Strength, 32,000,000 (221) Tensile Modulus

1. SCOPE:

1.1 Form: This specification covers one type of carbon fiber in the form of tow.

1.1.1 The material covered by this specification is multi-filament strands of fine carbon filaments having a nominal filament diameter of 7 microns (7 μm) and containing either 3,000, 6,000, or 12,000 filaments per tow as specified by purchaser.

1.2 Classification: Carbon tow with 450,000 psi (3100 MPa) tensile strength and 32,000,000 psi (221 GPa) tensile modulus for use in general purpose structural composites requiring high tensile strength and high modulus of elasticity in tension.

2. APPLICABLE DOCUMENTS: See AMS 3892 and the following:

2.1 Military Standards:

MIL-STD-414 - Sampling Procedure and Table for Inspection by Variables for Percent Defective

3. TECHNICAL REQUIREMENTS:

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

3.2 Properties: Shall be as follows; properties listed in 3.2.1 and 3.2.2 shall be determined by the strand method specified in AMS 3892.