

TOW OR YARN, CARBON (GRAPHITE) FIBERS
For Structural Composites
GF 220 (1515) Tensile Strength, 75 (517) Tensile Modulus

1. SCOPE:

1.1 Form: This specification covers one type of continuous multifilament carbon \emptyset (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 220,000 psi (1515 MPa) tensile \emptyset strength and 75,000,000 psi (517 GPa) tensile modulus for use in general purpose structural composites requiring very high modulus of elasticity and moderate tensile strength.

2. APPLICABLE DOCUMENTS: See AMS 3892.

3. TECHNICAL REQUIREMENTS:

3.1 Basic Specifications: 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 Properties: Shall be as follows; the requirements of 3.3.1, 3.3.2, and 3.3.3 apply to the average of the number of determinations indicated in the \emptyset basic specification but no individual value shall be less than 90% of the specified minimum average unless due to an obvious testing problem, in which case a substitute specimen may be tested:

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