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AEROSPACE MATERIAL SPECIFICATION

Submitted for recognition as an American National Standard

AMS 3644/2A

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Superseding AMS 3644/2

PLASTIC ROD AND BAR, POLYIMIDE
Graphite/PTFE Filled, Molded
15/10

1. SCOPE:

1.1 Form: This specification covers a polyimide plastic filled with graphite and polytetrafluoroethylene (PTFE) in the form of molded rod and bar.

1.2 Application: Primarily for parts requiring low coefficient of friction, thermal resistance, and toughness up to 260°C (500°F).

2. APPLICABLE DOCUMENTS: See AMS 3644.

3. TECHNICAL REQUIREMENTS:

3.1 Basic Specification: The complete requirements for procuring the product described herein shall consist of this document and the latest issue of the basic specification, AMS 3644.

3.2 Material: Shall be a polyimide polymer filled with graphie (15% by weight) and polytetrafluoroethylene (PTFE) (10% by weight) and molded to meet the requirements of 3.3.

3.3 Properties: Shall conform to the following requirements, determined on the product supplied and in accordance with test methods specified in AMS 3644. Specimens for elevated temperature tests shall be held at the test temperature for not less than 30 min. prior to testing. Values for tensile strength, elongation, flexural strength, and compressive strength shall be the average of three specimens for each test; no individual value shall be less than 90% of the minimum average value specified.

3.3.1 Color	Black, essentially as approved on preproduction sample
3.3.2 Tensile Strength, min avg	
At 23°C ± 1 (73°F ± 2)	5,500 psi (38 MPa)
At 260°C ± 5 (500°F ± 10)	2,500 psi (17 MPa)