

AEROSPACE MATERIAL SPECIFICATION

Type 10 Virgin Polytetrafluoroethylene (PTFE) Moldings or Extrusions with 15% Carbon Fiber

1. SCOPE:

1.1 Form:

This specification covers a polytetrafluoroethylene (PTFE) resin filled with carbon fiber in the form of extruded or molded rods or tubes which are sintered after molding or, in the case of extrusions, sintered during the extrusion process.

1.2 Application:

These products have been used typically for parts such as backup rings and seal elements in both static and dynamic applications requiring dimensional stability up to 450 °F (232 °C) with good mechanical properties, but usage is not limited to such applications. Each application should be considered individually.

2. APPLICABLE DOCUMENTS:

See AMS 3678.

3. TECHNICAL REQUIREMENTS:

3.1 Basic Specification:

The complete requirements for procuring the products described herein shall consist of this document and the latest issue of the basic specification, AMS 3678.

3.2 Material:

All products shall be molded or extruded from virgin polytetrafluoroethylene (PTFE) powder conforming to ASTM D 4894, Type II or Type IV, and should contain 15% $\pm$ 1 of carbon fibers dispersed throughout the material. The Carbon fibers should be a commercial grade of carbon fibers.

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