

**AEROSPACE
MATERIAL
SPECIFICATION**



AMS3650

REV. D

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Stabilized 2012-01

Superseding AMS3650C

Rods, Sheets, and Molded Shapes,
Polychlorotrifluoroethylene (PCTFE)
Unplasticized

RATIONALE

This document has been determined to contain basic and stable technology which is not dynamic in nature.

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1. SCOPE:

1.1 Form:

This specification covers a 100% homopolymer of polychlorotrifluoroethylene (PCTFE) in the form of rods, sheets, and molded shapes.

1.2 Application:

Primarily for parts requiring chemical inertness and high impact strength up to 200 °C (392 °F) or high-frequency electrical insulating properties up to 165 °C (329 °F).

1.3 Safety - Hazardous Materials:

While the materials, methods, applications, and processes described or referenced in this specification may involve the use of hazardous materials, this specification does not address the hazards which may be involved in such use. It is the sole responsibility of the user to ensure familiarity with the safe and proper use of any hazardous materials and to take necessary precautionary measures to ensure the health and safety of all personnel involved.

2. APPLICABLE DOCUMENTS:

The following publications form a part of this specification to the extent specified herein. The applicable issue of referenced publications shall be the issue in effect on the date of the purchase order.

2.1 ASTM Publications:

Available from ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 or www.astm.org.

ASTM D 149	Dielectric Breakdown Voltage and Dielectric Strength of Solid Electrical Insulating Materials at Commercial Power Frequencies
ASTM D 256	Impact Resistance of Plastics and Electric Insulating Materials
ASTM D 257	D-C Resistance or Conductance of Insulating Materials
ASTM D 618	Conditioning Plastics and Electrical Insulating Materials for Testing
ASTM D 638	Tensile Properties of Plastics
ASTM D 638M	Tensile Properties of Plastics (Metric)
ASTM D 792	Specific Gravity (Relative Density) and Density of Plastics by Displacement
ASTM D 1430	Polychlorotrifluoroethylene (PCTFE) Plastics
ASTM D 1708	Tensile Properties of Plastics by Use of Microtensile Specimens

2.2 U.S. Government Publications:

Available from DODSSP, Subscription Services Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

2.2.1 Military Standards:

MIL-STD-794 Parts and Equipment, Procedures for Packaging and Packing of

3. TECHNICAL REQUIREMENTS:

3.1 Material:

Shall be manufactured from virgin, unplasticized, 100% homopolymer of polychlorotrifluoroethylene (PCTFE).

3.2 Condition:

Annealed.

3.3 Color:

May range from natural translucent white to gray; localized discoloration resulting from processing will be acceptable.

3.4 Properties:

The product shall conform to the following requirements; tests shall be performed on the product supplied and in accordance with specified test methods, insofar as practicable: