

AEROSPACE

MATERIAL SPECIFICATIONS

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc. 485 Lexington Ave., New York 17, N.Y.

AMS 3647

Issued 1-31-64

Revised

POLYFLUOROETHYLENEPROPYLENE FILM AND SHEET

1. **ACKNOWLEDGMENT:** A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.
2. **APPLICATION:** Primarily for electrical, electronic, and mechanical applications requiring a chemically-inert film of the fluorocarbon family with high dielectric strength and volume resistivity and freedom from pinholes and electrical flaws.
3. **MATERIAL:** Fully-fluorinated thermoplastic copolymer of ethylene and propylene.
4. **TECHNICAL REQUIREMENTS:** The product shall conform to the following requirements; tests shall be performed on the product supplied and in accordance with the issue of listed ASTM methods specified in the latest issue of AMS 2350, insofar as practicable.

- 4.1 Tensile strength, both parallel and perpendicular to direction of extrusion, psi, min ASTM D882, Method A

Nominal Thickness, Inch

0.0005	2000
0.001 to 0.020	2500

- 4.2 Elongation at break, both parallel and perpendicular to direction of extrusion, %, min ASTM D882, Method A

Nominal Thickness, Inch

0.0005	175
0.001 to 0.020	250

- 4.3 Specific gravity, 73.4/73.4 F (23/23 C) 2.13 - 2.17 ASTM D792, Method A

- 4.4 Dielectric Strength, v per mil, min ASTM D149, Short Time Test, Rod Electrodes; Condition in accordance with ASTM D618, Procedure A; Voltage rise 500 - 600 v per sec to breakdown

Nominal Thickness, Inch

0.0005	4000
0.001	4000
0.002	3500
0.005	2500
0.010	1800
0.020	1400