Ajedium™ Films -- Thermoplastic Polyimide
thermoplastic polyimide

TPI is a thermoplastic polyimide film that has excellent, thermal, chemical, electrical and physical properties. With a continuous use temperature to 240°C (465°F), TPI films offer superior radiation resistance, excellent wear performance and resistance to chemicals.

General

Material Status
• Commercial: Active

Availability
• Asia Pacific
• Europe
• Latin America
• North America

Features
• Chemical Resistant
• Flame Retardant
• Good Electrical Properties
• High Heat Resistance
• Radiation (Gamma) Resistant

Uses
• Aircraft Applications
• Automotive Applications
• Electrical/Electronic Applications
• Industrial Applications
• Medical/Healthcare Applications
• Oil/Gas Applications

RoHS Compliance
• RoHS Compliant

Appearance
• Orange

Physical

Typical Value Unit Test method
Density / Specific Gravity 1.33 ASTM D792
Water Absorption (24 hr) 1.0 % ASTM D570

Films

Typical Value Unit Test method
Film Thickness - Tested 100 µm
Secant Modulus - MD 3050 MPa ASTM D882
Tensile Strength - MD (Break) 104 MPa ASTM D882
Tensile Elongation - MD Yield 7.0 % ASTM D882
Break 190 %
Dart Drop Impact 400 g ASTM D1709
Area Factor 145 ft²/lb/mil

Thermal

Typical Value Unit Test method
Glass Transition Temperature 250 °C ASTM D3418
Peak Melting Temperature 388 °C ASTM D3418

Electrical

Typical Value Unit Test method
Volume Resistivity 1.0E+17 ohms-cm ASTM D257
Dielectric Strength (0.100 mm) 160 kV/mm ASTM D149
Dielectric Constant (1 kHz) 2.50 ASTM D150
Dissipation Factor (1 kHz) 1.4E-3 ASTM D150

Flammability

Typical Value Unit Test method
Oxygen Index 47 % ASTM D2863
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Additional Information

Standard Thicknesses and Widths

- Widths are available from 22” (559 mm) to 56” (1422 mm). Products with widths <22 inches or >56 inches are available upon request.
- Tolerances for widths are +/- 4mm.
- For PI film, the standard thicknesses are 25 microns (1 mil) to 1016 microns (40 mil).

Surface Finishes

- Standard surface finish is P/M (polished / matte).
- Custom finishes of P/P (polished / polished) and M/M (matte / matte) are available.

Packaging

- Film is supplied in a roll form of high quality, cardboard core of 3” (76mm) or 6” (152mm).
- PVC cores are available upon request in 3” and 6” sizes.

Labeling

- Products are labeled to comply with national and international standards.
- Labels include product grade, unique batch number, roll length, roll width, product thickness, and net weight.

Notes

Typical properties: these are not to be construed as specifications.