DRAKE PAI THIN FILM & SHEET

DESCRIPTION

DRAKE PAI Thin Sheet & Film products are made from a non-reinforced polyamide-imide. They exhibit the high strength, surface hardness, temperature and wear resistance that is typical of unreinforced PAI resins and machinable shapes.

PRODUCT FEATURES

- Excellent thermal and electrical insulation
- Easily die-cut and fabricated
- Bonds to other substrates including metals
- Performs from cryogenic to 260°C / 500°F, depending on application

Material Notes: *PAI resin grade is similar to Torlon 4203L. Drake Certificate of Compliance included. Available in 0.3mm (0.012") up to 2mm (0.079") thicknesses.*

TYPICAL PROPERTIES

PHYSICAL PROPERTIES	METRIC	IMPERIAL	
Specific Gravity	1.41	1.41	ASTM D792
Water Absorption	0.4%	0.4%	Immersion, 24hr; ASTM D570
Water Absorption at Saturation	1.7%	1.7%	Immersion; ASTM D570
MECHANICAL PROPERTIES*			
Tensile Strength, Ultimate	141 MPa	20,4000 psi	Drake Method***; ASTM D638
Elongation at Break**	28%	28%	Drake Method***; ASTM D638
Tensile Modulus	4700 MPa	680,000 psi	Drake Method***; ASTM D638
THERMAL PROPERTIES			
Glass Transition Temp./T_g	275° C	527° F	ASTM D3418
Heat Deflection Temperature (264 PSI)	278° C	532° F	E831 TMA
Coefficient of Linear Thermal Expansion	30.6 ppm/°C	17.0 ppm/°F	DIN 51909
Thermal Conductivity	0.26 W/m*K	1.80 Btu*in/hr*ft²*°F	ASTM F433

*The mechanical properties of extruded shapes may differ from the values published by resin producers. Published resin data is always generated from test specimens injection molded under optimum conditions. Drake's extruded shape values are generated using specimens machined from actual shapes and may reflect surface imperfections from machining, enhanced crystallinity as a result of processing, and fiber alignment inherent in all reinforced plastic shapes, regardless of process. For additional information on the effects of fiber alignment, see Drake Fiber Orientation Diagram, available on the Resource page of our website.

** Elongation properties are dependent on crystallization and vary by manufacturing methods & cooling rates.