

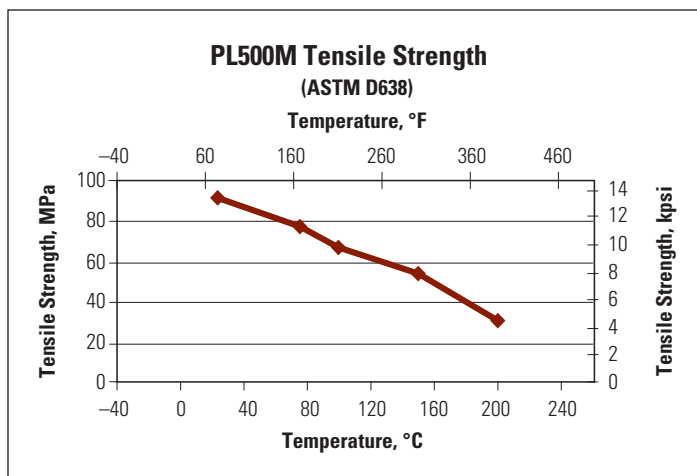
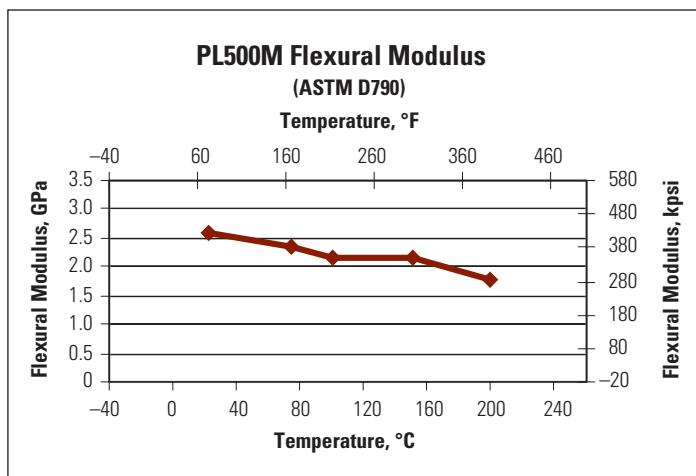
AURUM[®] PL500M

THERMOPLASTIC RESIN FOR HIGH-PURITY REQUIREMENTS

AURUM[®] PL500M resin is specified for high temperature applications requiring high purity, low outgassing and plasma resistance. PL500M resin is produced from amorphous unfilled thermoplastic polyimide (TPI) composition.

Typical Properties of AURUM[®] PL500M

Mechanical Property	Temperature	Test Method	Units	Typical Values
Tensile Strength	23 °C (73 °F)	ASTM D638	MPa (kpsi)	92 (13.3)
Elongation at Break	23 °C (73 °F)	ASTM D638	%	90
Flexural Strength	23 °C (73 °F)	ASTM D790	MPa (kpsi)	135 (19.6)
Flexural Modulus	23 °C (73 °F)	ASTM D790	GPa (kpsi)	2.9 (421)
Compressive Strength	23 °C (73 °F)	ASTM D695	MPa (kpsi)	144 (20.9)
Compressive Modulus	23 °C (73 °F)	ASTM D695	GPa (kpsi)	3.2 (464)
Notched Izod 3.2 mm (0.13 in)	23 °C (73 °F)	ASTM D256	J/m (ft·lb/in)	107 (2)
Hardness, Rockwell E	23 °C (73 °F)	ASTM D785		47
Thermal Property				
CTE Flow Direction	23–150 °C (73–302 °F)	ASTM E228	ppm/°C (ppm/°F)	49 (27)
CTE Transverse Direction	23–150 °C (73–302 °F)	ASTM E228	ppm/°C (ppm/°F)	52 (29)
Thermal Conductivity	23–150 °C (73–302 °F)	ASTM F433	W/m·K (BTU in/hr·ft ² °F)	0.13 (.901)
Electrical Property				
Dielectric Constant	23 °C (73 °F)	ASTM D150	100 Hz	3.34
Dielectric Constant	23 °C (73 °F)	ASTM D150	1 kHz	3.31
Dielectric Constant	23 °C (73 °F)	ASTM D150	10 kHz	3.10
Dielectric Constant	23 °C (73 °F)	ASTM D150	1 MHz	3.10
Other Properties				
Specific Gravity	23 °C (73 °F)	ASTM D792		1.33
Water Absorption, 24 hr	23 °C (73 °F)	ASTM D570	%	0.34



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