

AURUM[®] J-1548

THERMOPLASTIC RESIN FOR HIGH-LOAD APPLICATIONS

AURUM[®] J-1548 resin is specified for high temperature hostile environments requiring high mechanical properties and low wear and friction performance. J-1548 resin is produced from filled thermoplastic polyimide (TPI) composition.

Typical Properties of AURUM[®] J-1548

Mechanical Property	Temperature	Test Method	Units	Typical Values
Tensile Strength	23 °C (73 °F) 150 °C (302 °F)	ASTM D638	MPa (kpsi)	252 (36.5) 119 (17.3)
Elongation at Break	23 °C (73 °F) 150 °C (302 °F)	ASTM D638	%	2.0 2.0
Flexural Strength	23 °C (73 °F)	ASTM D790	MPa (kpsi)	354 (51.3)
Flexural Modulus	23 °C (73 °F)	ASTM D790	GPa (kpsi)	20.4 (2,900)
Notched Izod 3.2 mm (0.13 in)	23 °C (73 °F)	ASTM D256	J/m (ft-lb/in)	106 (2.0)
Thermal Property				
HDT at 1.8 MPa (264 psi)		ASTM D648	°C (°F)	236 (457)
CTE Flow Direction	23–150 °C (73–302 °F)	ASTM E228	ppm/°C (ppm/°F)	11 (6)
CTE Transverse Direction	23–150 °C (73–302 °F)	ASTM E228	ppm/°C (ppm/°F)	37 (21)
Wear and Friction				
PV Limit (Dry)*		DuPont	MPa m/s (kpsi-fpm)	4.0 (115)
Coefficient of Friction (Dry)*		DuPont		0.09
Other Properties				
Specific Gravity	23 °C (73 °F)	ASTM D792		1.39
Water Absorption, 24 hr	23 °C (73 °F)	ASTM D570	%	0.08

*Internal test method. Baldwin block on ring equipment. Pressure from 1.0 to 6.3 MPa (145 to 870 psi) against SUS440C.

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