

AURUM[®] JCL3010

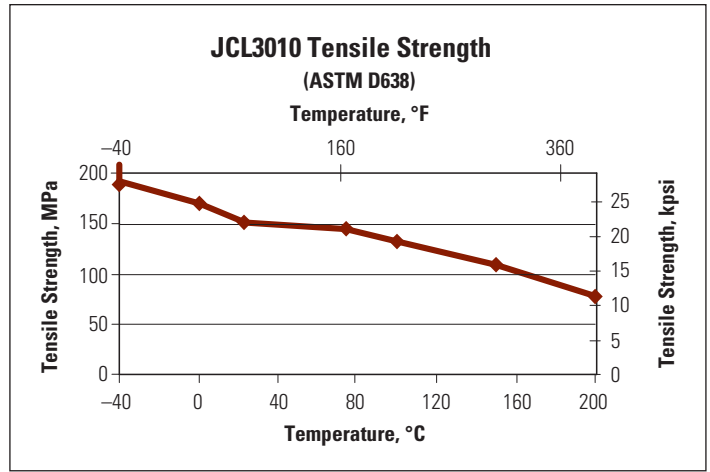
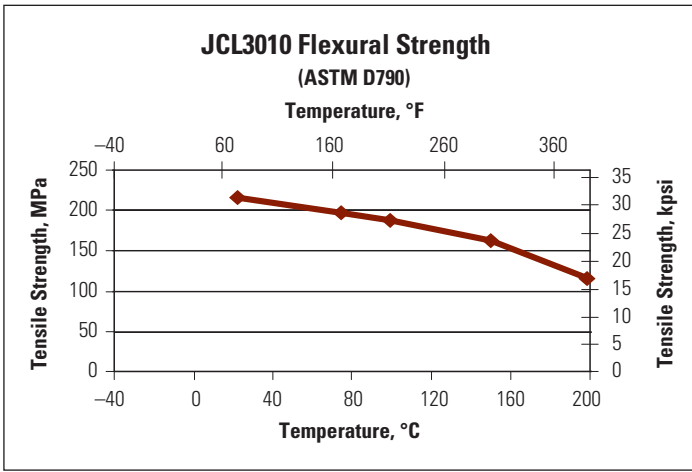
THERMOPLASTIC RESIN FOR HIGH-TEMPERATURE RESISTANCE

AURUM[®] JCL3010 resin is specified for use in both dry and lubricated high temperature environments. JCL3010 resin offers unique balance of mechanical properties and low wear and friction performance. JCL3010 resin is produced from filled thermoplastic polyimide (TPI) composition.

Typical Properties of AURUM[®] JCL3010

Mechanical Property	Temperature	Test Method	Units	Typical Values
Tensile Strength	23 °C (73 °F)	ASTM D638	MPa (kpsi)	151 (21.9)
Elongation at Break	23 °C (73 °F)	ASTM D638	%	4.0
Flexural Strength	23 °C (73 °F)	ASTM D790	MPa (kpsi)	215 (31.2)
Flexural Modulus	23 °C (73 °F)	ASTM D790	GPa (kpsi)	6.3 (926)
Compressive Modulus	23 °C (73 °F)	ASTM D695	MPa (kpsi)	3.2 (464,000)
Notched Izod 3.2 mm (0.13 in)	23 °C (73 °F)	ASTM D256	J/m (ft-lb/in)	96 (2)
Thermal Property				
HDT at 1.8 MPa (264 psi)		ASTM D648	°C (°F)	244 (471)
CTE Flow Direction	23–150 °C (73–302 °F)	ASTM E228	ppm/°C (ppm/°F)	17 (9)
CTE Transverse Direction	23–150 °C (73–302 °F)	ASTM E228	ppm/°C (ppm/°F)	50 (28)
Wear and Friction				
PV Limit (Dry)*		DuPont	MPa m/s (kpsi-fpm)	2.2 (63)
Coefficient of Friction (Dry)*		DuPont		0.12
Other Properties				
Specific Gravity	23 °C (73 °F)	ASTM D792		1.38
Water Absorption, 24 hr	23 °C (73 °F)	ASTM D570	%	0.11

*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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