

## Mitsui AURUM® JCL3030 Thermoplastic Polyimide Resin, Amorphous, Wear/Friction Grade (discontinued \*\*)

Category : Polymer , Thermoplastic , Polyimide, Thermoplastic

### Material Notes:

AURUM® is an easy melt, processable and recyclable thermoplastic polyimide resin that provides continuous service temperatures to 465° F in its amorphous state and up to 550° F when annealed to its semicrystalline state. In addition, it displays low outgassing, superior radiation resistance and excellent chemical resistance properties. Applications: Components for automotive and aircraft engines Transmission Farming, off-road and construction equipment Industrial machinery Electric motors, pumps and compressors Business machines such as laser pointers and high speed copy machines Electronic and semiconductor transport media Analytical and medical equipment Conveyors and textile equipment Information provided by Mitsui.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Mitsui-AURUM-JCL3030-Thermoplastic-Polyimide-Resin-Amorphous-WearFriction-Grade-nbspdiscontinued-.php](http://www.lookpolymers.com/polymer_Mitsui-AURUM-JCL3030-Thermoplastic-Polyimide-Resin-Amorphous-WearFriction-Grade-nbspdiscontinued-.php)

Physical Properties	Metric	English	Comments
Density	1.42 g/cc	0.0513 lb/in <sup>3</sup>	ASTM D792
Water Absorption	0.23 %	0.23 %	24 hours; ASTM D570
Moisture Absorption at Equilibrium	0.10 %	0.10 %	24 hours, 23°C, 60% RH
Linear Mold Shrinkage	0.0025 cm/cm	0.0025 in/in	ASTM D955

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	105	105	ASTM D785
Hardness, Rockwell R	128	128	ASTM D785
Tensile Strength at Break	228.5 MPa	33140 psi	ASTM D638
Tensile Strength, Ultimate	141.2 MPa @Temperature 150 °C	20480 psi @Temperature 302 °F	ASTM D638
Elongation at Break	2.0 %	2.0 %	ASTM D638
	4.0 % @Temperature 150 °C	4.0 % @Temperature 302 °F	ASTM D638
Flexural Strength	313 MPa	45400 psi	ASTM D790
	212 MPa @Temperature 150 °C	30700 psi @Temperature 302 °F	ASTM D790
Flexural Modulus	17.2 GPa	2490 ksi	ASTM D790

Mechanical Properties	14.8 GPa Metric	2150 ksi English	Comments
	@Temperature 150 °C	@Temperature 302 °F	
Compressive Strength	102 MPa	14800 psi	JIS K7208
	@Temperature 150 °C	@Temperature 302 °F	
Compressive Modulus	207 MPa	30000 psi	JIS K7208
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Compressive Modulus	2.45 GPa	355 ksi	At 150°C; JIS K7208
	3.92 GPa	569 ksi	At 23°C; JIS K7208
Shear Strength	60.8 MPa	8820 psi	JIS K7214
	@Temperature 150 °C	@Temperature 302 °F	
Shear Strength	91.2 MPa	13200 psi	JIS K7214
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Izod Impact, Notched	1.08 J/cm	2.02 ft-lb/in	ASTM D256

Thermal Properties	Metric	English	Comments
CTE, linear	6.00 µm/m-°C	3.33 µin/in-°F	MD; ASTM D696
	@Temperature 23.0 °C	@Temperature 73.4 °F	
CTE, linear	6.00 µm/m-°C	3.33 µin/in-°F	MD; ASTM D696
	@Temperature 200 °C	@Temperature 392 °F	
CTE, linear, Transverse to Flow	47.0 µm/m-°C	26.1 µin/in-°F	ASTM D696
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Specific Heat Capacity	47.0 µm/m-°C	26.1 µin/in-°F	ASTM D696
	@Temperature 200 °C	@Temperature 392 °F	
Specific Heat Capacity	0.920 J/g-°C	0.220 BTU/lb-°F	By DSC
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Specific Heat Capacity	0.960 J/g-°C	0.229 BTU/lb-°F	By DSC
	@Temperature 100 °C	@Temperature 212 °F	
Specific Heat Capacity	1.42 J/g-°C	0.339 BTU/lb-°F	By DSC
	@Temperature 300 °C	@Temperature 572 °F	
Thermal Conductivity	0.4883 W/m-K	3.383 BTU-in/hr-ft <sup>2</sup> -°F	
Melting Point	388 °C	730 °F	

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air			Injection temperature, load unknown; ASTM D648
Glass Transition Temp, Tg	250 °C	482 °F	By DSC
Flammability, UL94	V-0 @Thickness 0.400 mm	V-0 @Thickness 0.0157 in	all color

Electrical Properties	Metric	English	Comments
Surface Resistance	1000 - 10000 ohm	1000 - 10000 ohm	ASTM D257

Processing Properties	Metric	English	Comments
Processing Temperature	390 - 420 °C	734 - 788 °F	Injection molding, extrusion

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China