AURUM® JCQ6225A

Thermoplastic Polyimide

Mitsui Chemicals, Inc.

Message:

AURUM JCQ6225A is a high-performance polyimide for precision injection molded components and extruded products. A member of the AURUM family of advanced engineering resins, carbon fiber reinforced AURUM JCQ6225A offers a unique balance of mechanical, thermal, and tribological properties for outstanding performance in demanding automotive, business machinery, industrial equipment, aerospace, and semiconductor equipment applications. AURUM components offer excellent mechanical strength and toughness, dimensional stability, low outgassing, and exceptional radiation resistance. In addition, AURUM exhibits outstanding resistance to hydraulic, automotive, and many industrial fluids and solvents, a low coefficient of thermal expansion, creep resistance, and flame retardancy. AURUM JCQ6225A withstands high PV levels and provides a low wear factor and low friction surface over a broad temperature range in lubricated environments.

General Information	
Filler / Reinforcement	Carbon Fiber
Features	Flame Retardant Good Creep Resistance Good Dimensional Stability Good Strength Good Toughness Good Wear Resistance Low Friction Low to No Outgassing Radiation (Gamma) Resistant Solvent Resistant
Uses	Aerospace Applications Automotive Applications Business Equipment Gears Industrial Applications Seals Washer
Forms	Pellets
Processing Method	Extrusion Injection Molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.46	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (420°C/10.0 kg)	33	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.40 to 0.50	%	ASTM D955

Water Absorption			ASTM D570
23°C, 24 hr, 60% RH	0.15	%	
23°C, 24 hr	0.30	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (23°C)	109	MPa	ASTM D638
Tensile Elongation (Break, 23°C)	2.0	%	ASTM D638
Flexural Modulus (23°C)	6690	MPa	ASTM D790
Flexural Strength (23°C)	155	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact	80	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (0.45 MPa, Unannealed)	238	°C	ASTM D648
Glass Transition Temperature	240	°C	ASTM E1356
Melting Temperature	388	°C	
Injection	**Nominal Value**	**Unit**	
Drying Temperature	220	°C	
Drying Time	8.0	hr	
Suggested Max Regrind	30	%	
Rear Temperature	382 to 430	°C	
Mold Temperature	180 to 210	°C	
Injection Pressure	75.8 to 241	MPa	
Injection Rate	Moderate-Fast		
Back Pressure	0.00 to 0.345	MPa	
Screw Speed	100 to 200	rpm	

Recommended distributors for this material

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