Xydar® G-930

Liquid Crystal Polymer

Solvay Specialty Polymers

Message:

Xydar® G-930 Liquid Crystal Polymer (LCP) is a glass reinforced injection molding grade developed specifically for electrical/electronic applications utilizing surface mount technology.
The moldability of this resin is exceptional. Xydar® G-930 can fill very thin walls over long flow lengths with little or no flash, even at mold temperatures below 200°F (93°C). In addition, it has low warpage in molded products and exceptional weld line strength.
This material exhibits high strength and stiffness (even at elevated temperatures), low coefficient of thermal expansion, high deflection temperature, inherent flame resistance, and outstanding resistance to most chemicals, weathering, and radiation.

General Information			
Filler / Reinforcement	Glass Fiber,30% Filler by Weight		
Features	Flame Retardant Good Chemical Resistance Good Moldability Good Weather Resistance High Stiffness High Strength Low Warpage Radiation (Gamma) Resistant		
Uses	Automotive Applications Automotive Electronics Bobbins Electrical Parts Electrical/Electronic Applications Industrial Applications Industrial Parts		
RoHS Compliance	RoHS Compliant		
Appearance	Black Natural Color		
Forms	Pellets		
Processing Method	Injection Molding		
Multi-Point Data	Viscosity vs. Shear Rate (ISO 11403-2)		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.60	g/cm³	ASTM D792
Water Absorption (24 hr)	< 0.10	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	15900	MPa	ASTM D638

Tensile Strength	135	MPa	ASTM D638
Tensile Elongation (Break)	1.6	%	ASTM D638
Flexural Modulus	13400	MPa	ASTM D790
Flexural Strength	172	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact	96	J/m	ASTM D256
Unnotched Izod Impact	430	J/m	ASTM D4812
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
1.8 MPa, Unannealed	274	°C	ASTM D648
1.8 MPa, Unannealed	282	°C	ISO 75-2/A
Ball Pressure Test [1] (270°C, 3.00 mm)	Pass		IEC 60695-10-2
CLTE			ASTM D696
Flow	3.6E-6 to 7.2E-6	cm/cm/°C	
Transverse	4.0E-5 to 7.9E-5	cm/cm/°C	
RTI Elec (0.750 mm)	220	°C	UL 746
RTI Imp (0.750 mm)	200	°C	UL 746
RTI Str (0.750 mm)	220	°C	UL 746
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Dielectric Strength (1.57 mm)	39	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
60 Hz	4.20		
1 MHz	3.90		
Arc Resistance [2]	> 300	sec	UL 746
Comparative Tracking Index	185	V	ASTM D3638
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating [3] (0.400 mm, BK)	V-0		UL 94
Injection	**Nominal Value**	**Unit**	
Drying Temperature	149	°C	
Drying Time	6.0 to 8.0	hr	
Processing (Melt) Temp	321 to 360	°C	
Mold Temperature	65.6 to 93.3	°C	
Clamp Tonnage	2.8 to 5.5	kN/cm^2	
Screw L/D Ratio	20.0:1.0 to 24.0:1.0		
Screw Compression Ratio	2.5:1.0 to 3.0:1.0		
NOTE			
1.	Tested at UL, August 2015.		
2.	High Voltage Arc Resistance to Ignition		

3.	These flammability ratings are not intended to reflect hazards presented by this or any other material under actual fire conditions. Use up to 50% regrind is permitted per UL card.

Recommended distributors for this material

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