Xydar® G-930
liquid crystal polymer

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.

- Black: G-930 BK
- Natural: G-930 NT

General		
Material Status	• Commercial: Active	
Availability	• Asia Pacific • Europe	• North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight	
Features	• Chemical Resistant • Flame Retardant • Good Moldability • Good Weather Resistance	• High Stiffness • High Strength • Low Warpage • Radiation (Gamma) Resistant
Uses	• Automotive Applications • Automotive Electronics • Bobbins/Spools • Electrical Parts	• Electrical/Electronic Applications • Industrial Applications • Industrial Parts
RoHS Compliance	• RoHS Compliant	
Automotive Specifications	• ASTM D5138 LCP0110 G30 B00000	• DELPHI M-5282 M5282 Color: BK Black
Appearance	• Black	• Natural Color
Forms	• Pellets	
Processing Method	• Injection Molding	

Physical	Typical Value	Unit	Test method
Density / Specific Gravity	1.60		ASTM D792
Water Absorption (24 hr)	< 0.10	%	ASTM D570

Mechanical	Typical 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	Typical Value	Unit	Test method
Notched Izod Impact	96	J/m	ASTM D256
Unnotched Izod Impact	430	J/m	ASTM D4812

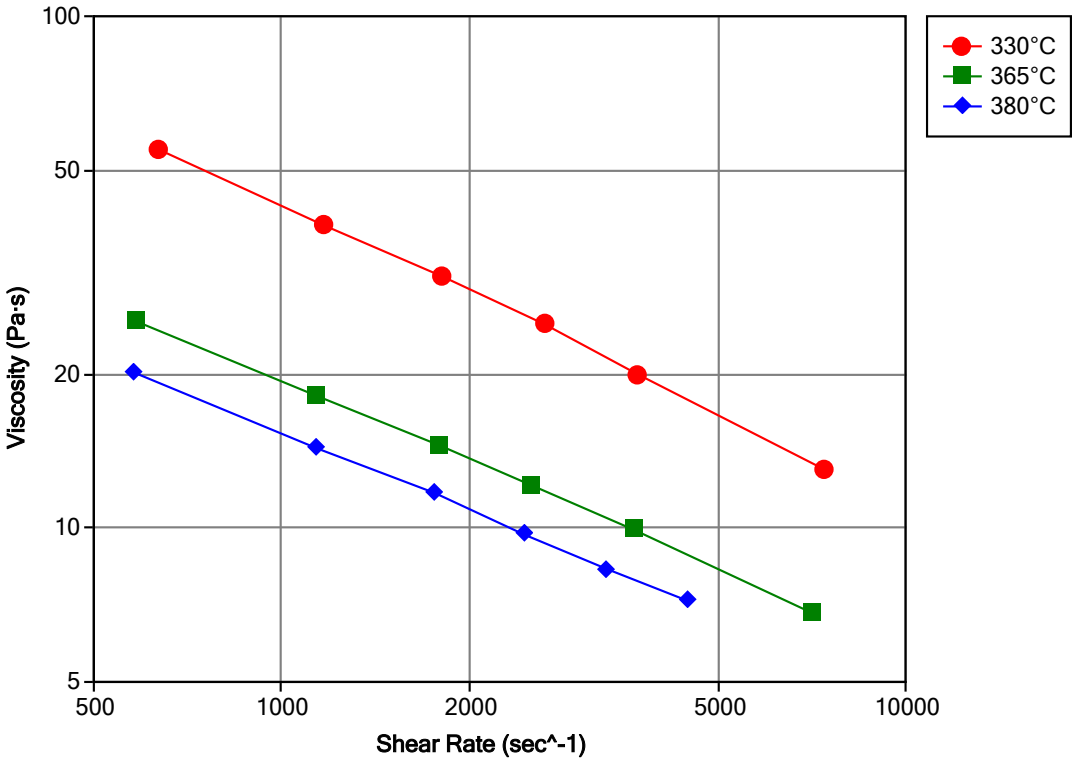
Thermal	Typical Value	Unit	Test method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	301	°C	ASTM D648
0.45 MPa, Unannealed	305	°C	ISO 75-2/B
1.8 MPa, Unannealed	274	°C	ASTM D648
1.8 MPa, Unannealed	282	°C	ISO 75-2/A
Ball Pressure Test [1] (270°C, 3.00 mm)	Pass		IEC 60695-10-2
CLTE			ASTM 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 (0.75 mm)	220	°C	UL 746B
RTI Imp (0.75 mm)	200	°C	UL 746B
RTI Str (0.75 mm)	220	°C	UL 746B

Electrical	Typical 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	Typical Value	Unit	Test method
Flame Rating [3] (0.40 mm, BK)	V-0		UL 94

Injection	Typical Value	Unit
Drying Temperature	149	°C
Drying Time	6.0 to 8.0	hr
Processing (Melt) Temp	321 to 360	°C
Mold Temperature	66 to 93	°C
Clamp Tonnage	2.8 to 5.5	kN/cm²
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	

Viscosity vs. Shear Rate (ISO 11403)



Notes

Typical properties: these are not to be construed as specifications.

[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.

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Safety Data Sheets (SDS) are available by emailing us or contacting your sales representative. Always consult the appropriate SDS before using any of our products.