

InStruc® LCPGF30

Americhem - Liquid Crystal Polymer

General Information

Product Description

InStruc® LCPGF30 is a 30% glass fiber reinforced injection molding grade of liquid crystal polymer (LCP) with excellent high temperature resistance, good puncture and cut resistance, and high dimensional stability, stiffness and strength. It is suitable for a wide range of applications.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight		
Features	• Chemical Resistant • Excellent Weather Resistance • Flame Retardant	• Good Flow • Good Thermal Stability • High Dimensional Stability	• High Heat Resistance • High Stiffness • High Strength
Processing Method	• Injection Molding		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.61		ASTM D792
Molding Shrinkage - Flow	0.0 to 1.0E-3	in/in	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.90E+6	psi	ASTM D638
Tensile Strength	18500	psi	ASTM D638
Tensile Elongation (Yield)	1.5 to 2.0	%	ASTM D638
Flexural Modulus	1.70E+6	psi	ASTM D790
Flexural Strength	28000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (0.125 in)	1.8	ft-lb/in	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	510	°F	ASTM D648

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	300	°F
Drying Time	6.0 to 8.0	hr
Suggested Max Moisture	0.010	%
Processing (Melt) Temp	640 to 680	°F
Mold Temperature	200 to 325	°F
Back Pressure	50.0 to 100	psi
Screw Speed	40 to 70	rpm

Notes

¹ Typical properties: these are not to be construed as specifications.

