

LG Chemical LUPOY[®] GP5100

Description: Injection Molding, PC/ABS+GF10%, General Purpose, GF Reinforced
Application: Electrical Appliance Housing, Automotive I/P

CAS: 103598-77-2, 9003-56-9 and 65997-17-3

Physical Properties	Metric	English	Comments
Specific Gravity	1.16 - 1.20 g/cc	1.16 - 1.20 g/cc	ASTM D792
Maximum Moisture Content	0.020	0.020	Injection Molding
Linear Mold Shrinkage, Flow	0.0030 - 0.0040 cm/cm @Thickness 3.20 mm	0.0030 - 0.0040 in/in @Thickness 0.126 in	ASTM D955

Melt Flow	4.0 g/10 min @Load 2.16 kg, Temperature 250 °C	4.0 g/10 min @Load 4.76 lb, Temperature 482 °F	ASTM D1238
-----------	--	--	------------

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	88.3 MPa @Thickness 3.20 mm	12800 psi @Thickness 0.126 in	5mm/min; ASTM D638
Elongation at Break	6.0 % @Thickness 3.20 mm	6.0 % @Thickness 0.126 in	5mm/min; ASTM D638
Flexural Yield Strength	137 MPa @Thickness 3.20 mm	19900 psi @Thickness 0.126 in	1.3mm/min; ASTM D790
Flexural Modulus	4.81 GPa @Thickness 3.20 mm	697 ksi @Thickness 0.126 in	1.3mm/min; ASTM D790
Izod Impact, Notched	>= 0.981 J/cm @Thickness 3.20 mm, Temperature 23.0 °C	>= 1.84 ft-lb/in @Thickness 0.126 in, Temperature 73.4 °F	ASTM D256

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	121 °C @Thickness 6.40 mm	250 °F @Thickness 0.252 in	Unannealed; ASTM D648

Processing Properties	Metric	English	Comments
-----------------------	--------	---------	----------

Rear Barrel Temperature	220 - 240 °C	428 - 464 °F	Injection Molding
Middle Barrel Temperature	235 - 255 °C	455 - 491 °F	Injection Molding
Front Barrel Temperature	250 - 265 °C	482 - 509 °F	Injection Molding
Nozzle Temperature	250 - 265 °C	482 - 509 °F	Injection Molding
Melt Temperature	235 - 265 °C	455 - 509 °F	Injection Molding
Mold Temperature	50.0 - 80.0 °C	122 - 176 °F	Injection Molding
Drying Temperature	85.0 - 95.0 °C	185 - 203 °F	Injection Molding
Dry Time	3.00 - 5.00 hour	3.00 - 5.00 hour	Injection Molding
Back Pressure	0.0200 - 0.0600 MPa	2.90 - 8.70 psi	Injection Molding
Screw Speed	40 - 70 rpm	40 - 70 rpm	Injection Molding