

## LG Chemical Lupox<sup>®</sup> GP1000S PBT

Category : Polymer , Thermoplastic , Polyester, TP , Polybutylene Terephthalate (PBT)

### Material Notes:

Description: Injection Molding, PBT, General Purpose  
 Application: Automotive (Connector)  
 CAS No. 24968-12-5  
 Information provided by LG Chemical

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_LG-Chemical-Lupox-GP1000S-PBT.php](http://www.lookpolymers.com/polymer_LG-Chemical-Lupox-GP1000S-PBT.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.30 g/cc	1.30 g/cc	ASTM D792
Maximum Moisture Content	0.020	0.020	Injection Molding
Linear Mold Shrinkage, Flow	0.012 - 0.020 cm/cm @Thickness 3.20 mm	0.012 - 0.020 in/in @Thickness 0.126 in	ASTM D955
Melt Flow	30 g/10 min @Load 2.16 kg, Temperature 250 °C	30 g/10 min @Load 4.76 lb, Temperature 482 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	58.8 MPa @Thickness 3.20 mm	8530 psi @Thickness 0.126 in	50mm/min; ASTM D638
Elongation at Break	30 % @Thickness 3.20 mm	30 % @Thickness 0.126 in	50mm/min; ASTM D638
Flexural Yield Strength	78.5 MPa @Thickness 3.20 mm	11400 psi @Thickness 0.126 in	2.8mm/min; ASTM D790
Flexural Modulus	2.45 GPa @Thickness 3.20 mm	356 ksi @Thickness 0.126 in	2.8mm/min; ASTM D790
Izod Impact, Notched	0.343 J/cm @Thickness 3.20 mm, Temperature 23.0 °C	0.643 ft-lb/in @Thickness 0.126 in, Temperature 73.4 °F	ASTM D256

Thermal Properties	Metric	English	Comments
Melting Point	225 °C	437 °F	@ Break; ASTM D3418
Deflection Temperature at 0.46 MPa (66 psi)	155 °C @Thickness 6.40 mm	311 °F @Thickness 0.252 in	Unannealed; ASTM D648

Thermal Properties (Temperature at 1.8 MPa (264 psi))	59.0 Â°C Metric	126 Â°F English	Comments Unannealed; ASTM D648
	@Thickness 6.40 mm	@Thickness 0.252 in	
UL RTI, Electrical	140 Â°C	284 Â°F	
	@Thickness >=0.710 mm	@Thickness >=0.0280 in	
	140 Â°C	284 Â°F	
	@Thickness >=1.50 mm	@Thickness >=0.0591 in	
UL RTI, Mechanical with Impact	140 Â°C	284 Â°F	
	@Thickness >=3.30 mm	@Thickness >=0.130 in	
	130 Â°C	266 Â°F	
	@Thickness >=0.710 mm	@Thickness >=0.0280 in	
UL RTI, Mechanical without Impact	130 Â°C	266 Â°F	
	@Thickness >=1.50 mm	@Thickness >=0.0591 in	
	130 Â°C	266 Â°F	
	@Thickness >=3.30 mm	@Thickness >=0.130 in	
UL RTI, Mechanical without Impact	140 Â°C	284 Â°F	
	@Thickness >=0.710 mm	@Thickness >=0.0280 in	
	140 Â°C	284 Â°F	
	@Thickness >=1.50 mm	@Thickness >=0.0591 in	
Flammability, UL94	140 Â°C	284 Â°F	
	@Thickness >=3.30 mm	@Thickness >=0.130 in	
	HB	HB	
	@Thickness >=0.710 mm	@Thickness >=0.0280 in	
Flammability, UL94	HB	HB	
	@Thickness >=1.50 mm	@Thickness >=0.0591 in	
	HB	HB	
	@Thickness >=3.30 mm	@Thickness >=0.130 in	

Electrical Properties	Metric	English	Comments
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Electrical Properties	Metric <sup>17 ohm-cm</sup>	English <sup>17 ohm-cm</sup>	Comments
Dielectric Strength	23.0 kV/mm @Thickness 1.00 mm	584 kV/in @Thickness 0.0394 in	ASTM D149
Arc Resistance	120 - 180 sec	120 - 180 sec	ASTM D495
Comparative Tracking Index	600 V	600 V	Solution A; IEC 60112
Hot Wire Ignition, HWI	7.0 - 15 sec @Thickness >=1.50 mm	7.0 - 15 sec @Thickness >=0.0591 in	
	15 - 30 sec @Thickness >=3.30 mm	15 - 30 sec @Thickness >=0.130 in	
High Amp Arc Ignition, HAI	>= 120 arcs @Thickness 1.50 mm	>= 120 arcs @Thickness 0.0591 in	
	>= 120 arcs @Thickness 3.30 mm	>= 120 arcs @Thickness 0.130 in	

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	230 - 235 Â°C	446 - 455 Â°F	Injection Molding
Middle Barrel Temperature	235 - 245 Â°C	455 - 473 Â°F	Injection Molding
Front Barrel Temperature	235 - 245 Â°C	455 - 473 Â°F	Injection Molding
Nozzle Temperature	240 - 250 Â°C	464 - 482 Â°F	Injection Molding
Melt Temperature	240 - 250 Â°C	464 - 482 Â°F	Injection Molding
Mold Temperature	40.0 - 80.0 Â°C	104 - 176 Â°F	Injection Molding
Drying Temperature	100 - 120 Â°C	212 - 248 Â°F	Injection Molding
Dry Time	3.00 - 5.00 hour	3.00 - 5.00 hour	Injection Molding

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China