

LUPOX GP1000S

Injection Molding, PBT

Description

General Purpose

Application

Automotive(Connector)

Properties	Test Condition	Test Method	Unit	Typical Value
Physical				
Specific Gravity		ASTM D792	-	1.31
Molding Shrinkage		ASTM D955	%	1.2 ~ 2.0
Melt Flow Rate	250 °C/2.16kg	ASTM D1238	g/10min	33
Water Absorption	23 °C, 24hrs	ASTM D570	%	0.08
Mechanical				
Tensile Strength, 3.2mm		ASTM D638		
@ Yield	50mm/min		kg/cm ²	600
Tensile Elongation, 3.2mm		ASTM D638		
@ Yield	50mm/min		%	-
@ Break	50mm/min		%	20
Flexural Strength, 3.2mm	2.5mm/min	ASTM D790	kg/cm ²	850
Flexural Modulus, 3.2mm	2.5mm/min	ASTM D790	kg/cm ²	25,000
IZOD Impact Strength, 6.4mm (Notched)	23 °C	ASTM D256	kg·cm/cm	3.7
Thermal				
Melt Temperature		ASTM D3418	°C	223
Heat Deflection Temperature, 6.4mm (Unannealed)	18.6kg	ASTM D648	°C	60
	4.6kg		°C	
Flammability		UL94		
0.71mm			class	HB
1.5mm			class	HB
3.3mm			class	HB
Relative Temperature Index		UL 746B		
Electrical			°C	140
Mechanical with Impact			°C	130
Mechanical without Impact			°C	140
Electrical				
Comparative Tracking Index(CTI)	Solution A	UL 746	PLC	0
Volume Resistivity	23 °C	ASTM D257	Ohm·cm	1.0E+17
Arc Resistance	23 °C	ASTM D495	PLC	5
Dielectric Strength, 1mm	23 °C	ASTM D149	kV/mm	23

Note) All properties, except melt flow rate are measured on injection molded specimens and after 48 hours storage at 23 °C, 50% relative humidity.

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Processing Guide (Injection Molding)

Processing Parameters	Unit	Value	
Drying Temperature	°C	100 ~ 120	
Drying Time	hrs	4 ~ 6	
Maximum Moisture Content	%	0.02	
Melt Temperature	°C	240 ~ 250	
Cylinder Temperature	Rear	°C	230 ~ 235
	Middle	°C	235 ~ 240
	Front	°C	240 ~ 245
Nozzle Temperature	°C	240 ~ 250	
Mold Temperature	°C	40 ~ 80	
Back Pressure	kg/cm ²	-	
Screw Speed	rpm	-	

Note) Back Pressure & Screw Speed are only mentioned as general guidelines.

These may not apply or need adjustment in specific situations such as low shot sizes, thin wall molding and gas-assist molding.

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