

# LUPOX GP1000DS-K4KA02

Injection Molding, PBT

## Description

General Purpose

## Application

Automotive(Head Lamp Bezel)

Properties	Test Condition	Test Method	Unit	Typical Value
<b>Physical</b>				
Specific Gravity		ASTM D792	-	1.31
Water Absorption	23 °C, 24hrs	ASTM D570	%	0.04
Molding Shrinkage	2mm	ASTM D955	%	1.8 ~ 2.0
Melt Flow Rate	250 °C/2.16kg	ASTM D1238	g/10min	43
<b>Mechanical</b>				
Tensile Strength, 3.2mm		ASTM D638		
@ Yield	5mm/min		kg/cm <sup>2</sup>	560
Tensile Elongation, 3.2mm		ASTM D638		
@ Yield	5mm/min		%	-
@ Break	5mm/min		%	10
Flexural Strength, 6.4mm	5mm/min	ASTM D790	kg/cm <sup>2</sup>	870
Flexural Modulus, 6.4mm	5mm/min	ASTM D790	kg/cm <sup>2</sup>	25,500
IZOD Impact Strength, 6.4mm (Notched)	23 °C	ASTM D256	kg·cm/cm	3.0
<b>Thermal</b>				
Melting Temperature		ASTM D3418	°C	223
Heat Deflection Temperature, 6.4mm (Unannealed)	18.6kg	ASTM D648	°C	
	4.6kg		°C	170
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
<b>Electrical</b>				
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	110	
Drying Time	hrs	5	
Maximum Moisture Content	%	0.02	
Melt Temperature	°C	245 ~ 260	
Cylinder Temperature	Rear	°C	240 ~ 250
	Middle	°C	245 ~ 255
	Front	°C	245 ~ 255
Nozzle Temperature	°C	250 ~ 260	
Mold Temperature	°C	30 ~ 50	
Back Pressure	kg/cm <sup>2</sup>	300	
Screw Speed	rpm	60	

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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