

# LUPOX GP1006FD

Injection Molding, PBT

## Description

Flame Retardant, High Impact

## Application

IT/OA, Automotive (Connector)

Properties	Test Condition	Test Method	Unit	Typical Value
<b>Physical</b>				
Specific Gravity		ASTM D792	-	1.42
Molding Shrinkage		ASTM D955	%	1.2 ~ 2.0
Melt Flow Rate	250 °C/2.16kg	ASTM D1238	g/10min	18
Water Absorption	23 °C, 24hrs	ASTM D570	%	0.08
<b>Mechanical</b>				
Tensile Strength, 3.2mm		ASTM D638		
@ Yield	50mm/min		kg/cm <sup>2</sup>	520
Tensile Elongation, 3.2mm		ASTM D638		
@ Yield	50mm/min		%	-
@ Break	50mm/min		%	> 50
Flexural Strength, 3.2mm	1.3mm/min	ASTM D790	kg/cm <sup>2</sup>	730
Flexural Modulus, 3.2mm	1.3mm/min	ASTM D790	kg/cm <sup>2</sup>	22,000
IZOD Impact Strength, 6.4mm (Notched)	23 °C	ASTM D256	kg·cm/cm	6.0
<b>Thermal</b>				
Melt Temperature		ASTM D3418	°C	223
Heat Deflection Temperature, 6.4mm (Unannealed)	18.6kg	ASTM D648	°C	62
	4.6kg		°C	
Flammability		UL94		
0.71mm			class	V-0
1.5mm			class	V-0
3.0mm			class	V-0, 5VA
Relative Temperature Index		UL 746B		
Electrical			°C	130
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+13
Arc Resistance	23 °C	ASTM D495	PLC	6
Dielectric Strength, 1mm	23 °C	ASTM D149	kV/mm	20

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

Updated : 1-Jul-14

The information contained herein, including, but not limited to, data, statements and typical values, are given in good faith. LG Chem makes no warranty or guarantee, expressed or implied, (i) that the result described herein will be obtained under end - use conditions, or (ii) as to the effectiveness or safety of any design incorporating LG Chem materials, products, recommendations or advice. Further, any information contained herein shall not be construed as a part of legally binding offer. Especially, the typical values should be regarded as reference values only and not as binding minimum values. Each user bear full responsibility for making its own determination as to the suitability of LG Chem's materials, products, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating LG Chem material or products will be safe and suitable for use under end - use conditions. The data contained herein can be changed without notice as a result of the quality improvement of the products.

# LUPOX GP1006FD

Injection Molding, PBT

## Description

Flame Retardant, High Impact

## Application

IT/OA, Automotive (Connector)

### Processing Guide (Injection Molding)

Processing Parameters	Unit	Value	
Drying Temperature	°C	110 ~ 120	
Drying Time	hrs	4 ~ 6	
Maximum Moisture Content	%	0.02	
Melt Temperature	°C	245 ~ 255	
Cylinder Temperature	Rear	°C	235 ~ 240
	Middle	°C	240 ~ 245
	Front	°C	245 ~ 250
Nozzle Temperature	°C	245 ~ 255	
Mold Temperature	°C	40 ~ 80	
Back Pressure	kg/cm <sup>2</sup>	-	
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.

Updated : 1-Jul-14

The information contained herein, including, but not limited to, data, statements and typical values, are given in good faith. LG Chem makes no warranty or guarantee, expressed or implied, (i) that the result described herein will be obtained under end - use conditions, or (ii) as to the effectiveness or safety of any design incorporating LG Chem materials, products, recommendations or advice. Further, any information contained herein shall not be construed as a part of legally binding offer. Especially, the typical values should be regarded as reference values only and not as binding minimum values. Each user bear full responsibility for making its own determination as to the suitability of LG Chem's materials, products, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating LG Chem material or products will be safe and suitable for use under end - use conditions. The data contained herein can be changed without notice as a result of the quality improvement of the products.