

# LUPOY GN5201F

Injection Molding, PC/ABS+GF20%, Cl/Br Free Flame Retardancy

## Application

Electronics, Industrial Goods

Properties	Condition	Method	Unit	Typical Value
<b>Physical</b>				
Specific Gravity	23°C	ASTM D792		1.36
Shrinkage		ASTM D955		
Flow	2.0mm		%	0.2~0.4
Cross-flow	2.0mm		%	0.2~0.4
Melt Flow Rate	250°C, 2.16kg	ASTM D1238	g/10min	6.6
Water Absorption	23°C, 50% RH	ASTM D570	%	0.20
<b>Mechanical</b>				
Tensile Strength		ASTM D638		
@Yield	3.2mm, 5mm/min		kgf/cm <sup>2</sup>	
@Break	3.2mm, 5mm/min		kgf/cm <sup>2</sup>	1,050
Tensile Elongation		ASTM D638		
@Yield	3.2mm, 5mm/min		%	
@Break	3.2mm, 5mm/min		%	2.5
Tensile Modulus	3.2mm, 5mm/min	ASTM D638	kgf/cm <sup>2</sup>	64,130
Flexural Strength	3.2mm, 1.3mm/min	ASTM D790	kgf/cm <sup>2</sup>	1,550
Flexural Modulus	3.2mm, 1.3mm/min	ASTM D790	kgf/cm <sup>2</sup>	60,000
IZOD Impact Strength		ASTM D256		
3.2mm, Notched	23°C		kgf·cm/cm	11
	-30°C		kgf·cm/cm	7.0
6.4mm, Notched	23°C		kgf·cm/cm	10
	-30°C		kgf·cm/cm	7.0
	-40°C		kgf·cm/cm	6.0
Rockwell Hardness	R-Scale	ASTM D785		121
Shore Hardness		ASTM D2240		
Shore A	15s			
<b>Thermal</b>				
Melt Temperature	Peak	ASTM D3418	°C	
Heat Deflection Temperature		ASTM D648		
4.6kgf	6.4mm, Unannealed		°C	95
18.6kgf	6.4mm, Unannealed		°C	90
Vicat Softening Temperature	5kg, 50°C/hr	ASTM D1525	°C	95
Coefficient of Linear Thermal Expansion		ASTM D696		
Flow	-30°C ~ 80°C		10 <sup>-6</sup> m/m·°C	30
Cross-flow	-30°C ~ 80°C		10 <sup>-6</sup> m/m·°C	75
Thermal Conductivity		ASTM E1461		
In-plane			W/m·K	
Through-plane			W/m·K	

## Flammability

Flammability

UL94

mm, Class 2.00mm, V-0  
mm, Class 1.50mm, V-1

Relative Temperature Index(RTI)

UL746B

Electrical	Min. Thickness	mm	1.50
	Temp	°C	60
	Max. Temp	°C	60
	Thickness	mm	1.50
Mechanical With Impact	Min. Thickness	mm	1.50
	Temp	°C	60
	Max. Temp	°C	60
	Thickness	mm	1.50
Mechanical Without Impact	Min. Thickness	mm	1.50
	Temp	°C	60
	Max. Temp	°C	60
	Thickness	mm	1.50

**Electrical**

Comparative Tracking Index(CTI)	Solution A	UL746A	PLC	
Surface Resistivity	23°C	ASTM D257	Ohm	1E+15
Volume Resistivity	23°C	ASTM D257	Ohm·m	1E+15
Dielectric Constant	23°C	ASTM D150		3.2
Dielectric Strength	23°C, 2.0mm	ASTM D149	kV/mm	20
EMI Shield	1GHz, 3.0mm	ASTM D4935	dB	

Note) Typical values can be used only for the purpose of selecting material, and there can be variation within normal tolerances for various colors.

Values given should not be interpreted as specification and not be used for designing part or tool.

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

Issued Date : 2022-11-14

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.

# LUPOY GN5201F

Injection Molding, PC/ABS+GF20%, Cl/Br Free Flame Retardancy

## Application

Electronics, Industrial Goods

### Processing Conditions (Injection Molding)

Processing Parameters	Unit	Value	
Drying Temperature	°C	80~85	
Drying Time	hrs	3~4	
Maximum Moisture Content	%	0.04	
Melt Temperature	°C	235~265	
Cylinder Temperature	Rear	°C	220~250
	Middle	°C	235~255
	Front	°C	235~255
Nozzle Temperature	°C	230~255	
Mold Temperature	°C	60~80	

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