

# LUPOY GN1006FM

Injection Molding, PC, Cl/Br Free Flame Retardancy

## Description

Transparent

## Application

Auto, Electronics, Home Appliances, Industrial Goods

Properties	Condition	Method	Unit	Typical Value
<b>Physical</b>				
Specific Gravity	23°C	ISO 1183		1.20
Shrinkage		ISO 294-4		
Flow	2.0mm		%	0.6~0.8
Cross-flow	2.0mm		%	0.7~0.9
Melt Flow Rate	300°C, 1.2kg	ISO 1133	g/10min	10.0
Water Absorption	23°C, 50% RH	ISO 62	%	0.20
<b>Mechanical</b>				
Tensile Strength		ISO 527		
@Yield	4.0mm, 50mm/min		MPa	60
@Break	4.0mm, 50mm/min		MPa	73
Tensile Elongation		ISO 527		
@Yield	4.0mm, 50mm/min		%	6
@Break	4.0mm, 50mm/min		%	140
Tensile Modulus	4.0mm, 1mm/min	ISO 527	MPa	2,210
Flexural Strength	4.0mm, 2.0mm/min	ISO 178	MPa	90
Flexural Modulus	4.0mm, 2.0mm/min	ISO 178	MPa	2,200
IZOD Impact Strength		ISO 180		
4.0mm, Notched	23°C		kJ/m <sup>2</sup>	70.0
	-30°C		kJ/m <sup>2</sup>	9.0
	-40°C		kJ/m <sup>2</sup>	9.0
Charpy Impact Strength		ISO 179		
4.0mm, Notched	23°C		kJ/m <sup>2</sup>	72.0
	-30°C		kJ/m <sup>2</sup>	11.0
	-40°C		kJ/m <sup>2</sup>	10.0
Rockwell Hardness	R-Scale	ISO 2039		118

## Thermal

Heat Deflection Temperature	4.0mm, Flatwise	ISO 75		
0.45MPa	Unannealed		°C	139
1.8MPa	4.0mm, Flatwise Unannealed		°C	127

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.

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Vicat Softening Temperature	50N, 50°C/hr	ISO 306	°C	142
Coefficient of Linear Thermal Expansion		ISO 11359		
Flow	-30°C ~ 80°C		10 <sup>-6</sup> m/m·°C	77
Cross-flow	-30°C ~ 80°C		10 <sup>-6</sup> m/m·°C	79

## Flammability

Flammability	UL94	mm, Class		2mm, V-1
		mm	Class	
Relative Temperature Index(RTI)	UL746B			
Electrical	Min. Thickness	mm	0.80	
	Temp	°C	80	
	Max. Temp	°C	120	
	Thickness	mm	1.50	
Mechanical With Impact	Min. Thickness	mm	0.80	
	Temp	°C	80	
	Max. Temp	°C	110	
	Thickness	mm	1.50	
Mechanical Without Impact	Min. Thickness	mm	0.80	
	Temp	°C	80	
	Max. Temp	°C	120	
	Thickness	mm	1.50	

## Electrical

Comparative Tracking Index(CTI)	Solution A	UL746A	PLC	3
Dielectric Constant	23°C	ASTM D150		2.8
Dielectric Strength	23°C, 2.0mm	ASTM D149	kV/mm	19

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### Processing Conditions (Injection Molding)

Processing Parameters	Unit	Value
Drying Temperature	°C	100~120
Drying Time	hrs	3~5
Maximum Moisture Content	%	0.02
Melt Temperature	°C	300~320
	Rear	260~280
Cylinder Temperature	Middle	280~300
	Front	300~320
Nozzle Temperature	°C	300~320
Mold Temperature	°C	80~120

Note) 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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