

LUPOY GN2301F

Injection Molding, PC+GF30%

Description

Halogen Free Flame Retardant, Heat Resistance

Application

IT/OA, Electric & Electronic Housing and Components

Properties	Test Condition	Test Method	Unit	Typical Value
Physical				
Specific Gravity		ASTM D792	-	1.43
Molding Shrinkage (Flow), 3.2mm		ASTM D955	%	0.1~0.3
Melt Flow Rate	300°C/1.2kg	ASTM D1238	g/10min	5
Mechanical				
Tensile Strength, 3.2mm		ASTM D638		
@ Yield	5mm/min		kg/cm ²	1,200
Tensile Elongation, 3.2mm		ASTM D638		
@ Yield	5mm/min		%	
@ Break	5mm/min		%	2
Flexural Strength, 3.2mm	1.3mm/min	ASTM D790	kg/cm ²	1,800
Flexural Modulus, 3.2mm	1.3mm/min	ASTM D790	kg/cm ²	75,000
IZOD Impact Strength, 3.2mm (Notched)	23°C -30°C	ASTM D256	kg·cm/cm kg·cm/cm	11
Rockwell Hardness	R-Scale	ASTM D785	-	120
Thermal				
Heat Deflection Temperature, 6.4mm (Unannealed)	18.6kg 4.6kg	ASTM D648	°C °C	145
Vicat Softening Temperature	5kg, 50°C/h	ASTM D1525	°C	
Flammability		UL94		
0.8mm			class	
1.5mm			class	V-0
2.5mm			class	
3.0mm			class	V-0, 5VA
Relative Temperature Index		UL 746B		
Electrical			°C	120
Mechanical with Impact			°C	90
Mechanical without Impact			°C	105

Note) Typical values are only for material selection purpose, and variation within normal tolerances are for various colors.

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

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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Electrical

Property	Condition	Standard	Unit
Comparative Tracking Index(CTI)	Solution A	IEC 60112	Volts
Surface Resistivity		IEC 60093	Ohm
Volume Resistivity	23 °C	ASTM D257	Ohm·m
Arc Resistance	23 °C	ASTM D495	Ohm·cm
Dielectric Strength, 1mm	23 °C	ASTM D149	kV/mm
Dielectric Constant (10 ⁶ Hz)	23 °C	ASTM D150	sec

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Processing Guide (Injection Molding)

Processing Parameters		Unit	Value
Drying Temperature		°C	100 ~ 120
Drying Time		hrs	3 ~ 5
Minimum Moisture Content		%	0.02
Melt Temperature		°C	300 ~ 340
Cylinder Temperature	Rear	°C	270 ~ 300
	Middle	°C	280 ~ 310
	Front	°C	290 ~ 330
Nozzle Temperature		°C	290 ~ 330
Mold Temperature		°C	90 ~ 120
Back Pressure		kg/cm ²	10 ~ 40
Screw Speed		rpm	40 ~ 70

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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