

LUPOL GP1000FD

Injection Molding, FR PP

Description

General Purpose, Flame Retardant

Application

Electrical & Electronic, Automotive Parts

Properties	Test Condition	Test Method	Unit	Typical Value
Physical				
Specific Gravity		ASTM D792	-	1
Molding Shrinkage (Flow), 3.2mm		ASTM D955	%	1.6~1.8
Melt Flow Rate	230°C/2.16kg	ASTM D1238	g/10min	16
Mechanical				
Tensile Strength, 3.2mm		ASTM D638		
@ Yield	50mm/min		kg/cm ²	250
Tensile Elongation, 3.2mm		ASTM D638		
@ Yield	50mm/min		%	-
@ Break	50mm/min		%	100.0
Flexural Strength, 6.4mm	10mm/min	ASTM D790	kg/cm ²	350
Flexural Modulus, 6.4mm	10mm/min	ASTM D790	kg/cm ²	12,000
IZOD Impact Strength, 6.4mm (Notched)	23°C -10°C	ASTM D256	kg-cm/cm kg-cm/cm	8 -
Rockwell Hardness	R-Scale	ASTM D785	-	-
Thermal				
Heat Deflection Temperature, 3.2mm		ASTM D648		
(Unannealed)	4.6kg		°C	100
Flammability		UL94		
0.75mm			class	V-0
Relative Temperature Index		UL 746B		
Electrical			°C	---
Mechanical with Impact			°C	---
Mechanical without Impact			°C	---

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 moulded 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	70 ~ 80
Drying Time		hrs	3~4
Maximum Moisture Content		%	0.01
Melt Temperature		°C	200 ~ 230
Cylinder Temperature	Rear	°C	190 ~ 210
	Middle	°C	200 ~ 230
	Front	°C	200 ~ 230
Nozzle Temperature		°C	210 ~ 230
Mold Temperature		°C	40 ~ 60
Back Pressure		kg/cm ²	3
Screw Speed		rpm	30 ~ 60
			30 ~ 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.