SolutionPartner

LG Chem

LUPOL GN1000F

Injection Molding, FR PP

Description

General Purpose, Non-halogen Retardant

Application

Electrical & Electronic, Automotive Parts

Properties	Test Condition	Test Method	Unit	Typical Value
Physical				
Specific Gravity		ASTM D792	-	1.02
Molding Shrinkage (Flow), 3.2mm		ASTM D955	%	1.3~1.6
Melt Flow Rate	230℃/2.16kg	ASTM D1238	g/10min	18
Mechanical				
Tensile Strength, 3.2mm				
@ Yield	50mm/min	ASTM D638	kg/cm2	290
Tensile Elongation, 3.2mm				
@ Break	50mm/min	ASTM D638	%	20
Flexural Strength, 6.4mm	10mm/min	ASTM D790	kg/cm2	450
Flexural Modulus, 6.4mm	10mm/min	ASTM D790	kg/cm2	21,500
IZOD Impact Strength, 6.4mm		ASTM D256		
(Notched)	23℃		kg cm/cm	3.0
	-30℃		kg cm/cm	-
Rockwell Hardness	R-Scale	ASTM D785	-	-
Thermal				
Heat Deflection Temperature, 3.2mm				
(Unannealed)	18.6kg	ASTM D648	℃	
	4.6kg		℃	120
Vicat Softening Temperature				
	5kg, 50℃/h	ASTM D1525	℃	-
Flammability				
1.6~1.7mm		UL94	Class	V-0
Relative Temperature Index (RTI)				
Electrical		UL 746B	℃	65
Mechanical with Impact			℃	65
Mechanical without Impact			℃	65

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 molulded specimens and after 48 hours storage at 23℃, 50% relative humidty.

Updated : April-28, 2015

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Electrical

Comparative Tracking Index(CTI)		IEC 60112	Volts
Surface Resistivity		IEC 60093	Ohm
Volume Resistivity	23℃	ASTM D257	Ohm m
Arc Resistance	23℃	ASTM D495	Ohm cm
Dielectric Strength, 1mm	23℃	ASTM D149	kV/mm
Dielectric Constant (10^6 Hz)	23℃	ASTM D150	sec

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Processing Guide (Injection Molding)

Processing Parameters		Unit	Value
Drying Temperature		℃	70~ 80
Drying Time		hrs	3~4
Maximum Moisture Content		%	0.01
Melt Temperature		℃	200 ~ 220
Cylinder Temperature	Rear	℃	190 ~ 200
	Middle	℃	195 ~ 210
	Front	℃	200 ~ 220
Nozzle Temperature		℃	200 ~ 210
Mold Temperature		℃	40 ~ 70
Back Pressure		kg/cm^2	300 ~ 600
Screw Speed		rpm	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.

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