

LUPOY GN1002FL

Injection Molding, PC

Description

Halogen Free Flame Retardant, High Flow
High Impact

Application

IT/OA (M/P Battery Inner Pack Housing)

Properties	Test Condition	Test Method	Unit	Typical Value
Physical				
Specific Gravity		ASTM D792	-	1.2
Molding Shrinkage (Flow), 3.2mm		ASTM D955	%	0.5~0.8
Melt Flow Rate	300°C/1.2kg	ASTM D1238	g/10min	25
Mechanical				
Tensile Strength, 3.2mm		ASTM D638		
@ Yield	50mm/min		kg/cm ²	620
Tensile Elongation, 3.2mm		ASTM D638		
@ Yield	50mm/min		%	
@ Break	50mm/min		%	>100
Flexural Strength, 3.2mm	10mm/min	ASTM D790	kg/cm ²	940
Flexural Modulus, 3.2mm	10mm/min	ASTM D790	kg/cm ²	23,400
IZOD Impact Strength, 3.2mm (Notched)	23°C -30°C	ASTM D256	kg·cm/cm kg·cm/cm	65
Rockwell Hardness	R-Scale	ASTM D785	-	117
Thermal				
Heat Deflection Temperature, 6.4mm (Unannealed)	18.6kg 4.6kg	ASTM D648	°C °C	115
Vicat Softening Temperature	5kg, 50°C/h 1kg, 120°C/h	ASTM D1525	°C °C	
Flammability		UL94		
0.7mm			class	
1.5mm			class	V-0
2.0mm			class	V-0, 5VB
3.2mm			class	
Relative Temperature Index		UL 746B		
Electrical			°C	80
Mechanical with Impact			°C	80
Mechanical without Impact			°C	80

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.

Updated : Nov-09, 2009

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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	90~100	
Drying Time	hrs	3 ~ 4	
Minimum Moisture Content	%	0.02	
Melt Temperature	°C	275 ~ 290	
Cylinder Temperature	Rear	°C	270 ~ 285
	Middle	°C	275 ~ 290
	Front	°C	275 ~ 290
Nozzle Temperature	°C	270 ~ 285	
Mold Temperature	°C	80 ~ 100	
Back Pressure	kg/cm ²	10 ~ 40	
Screw Speed	rpm	40 ~ 80	

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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