

LUPOY GP5056F

Injection Molding, PC/ABS+GF5%

Description

Flame Retardance, General Purpose

Application

IT/OA(Housing)

Properties	Test Condition	Test Method	Unit	Typical Value
Physical				
Specific Gravity		ASTM D792	-	1.2
Molding Shrinkage (Flow), 3.2mm		ASTM D955	%	0.35 ~ 0.55
Melt Flow Rate	260 °C/2.16 kg	ASTM D1238	g/10min	2.5
Mechanical				
Tensile Strength, 3.2mm		ASTM D638		
@ Yield	50mm/min		kg/cm ²	715
Tensile Elongation, 3.2mm		ASTM D638		
@ Yield	50mm/min		%	
@ Break	50mm/min		%	6
Tensile Modulus, 3.2mm	1mm/min	ASTM D638	kg/cm ²	
Flexural Strength, 3.2mm	10mm/min	ASTM D790	kg/cm ²	1,150
Flexural Modulus, 3.2mm	10mm/min	ASTM D790	kg/cm ²	34,000
IZOD Impact Strength, 3.2mm (Notched)		ASTM D256		
	23 °C		kg·cm/cm	5.5
	-30 °C		kg·cm/cm	
Rockwell Hardness	R-Scale	ASTM D785	-	
Thermal				
Heat Deflection Temperature, 6.4mm (Unannealed)		ASTM D648		
	18.6kg		°C	110
	4.6kg		°C	
Vicat Softening Temperature		ASTM D1525		
	5kg, 50 °C/h		°C	
Ball Pressure Temperature		IEC 60695-10-2	°C	
Burning Rate, 3.2mm		FMVSS 302	mm	
Flammability		UL94		
0.7mm			class	
1.2mm			class	
2.5mm			class	V0
3.0mm			class	V0
Relative Temperature Index		UL 746B		
Electrical			°C	60
Mechanical with Impact			°C	60
Mechanical without Impact			°C	60

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	75 ~ 85	
Drying Time	hrs	3 ~ 5	
Minimum Moisture Content	%	0.02	
Melt Temperature	°C	235 ~ 265	
Cylinder Temperature	Rear	°C	220 ~ 240
	Middle	°C	235 ~ 255
	Front	°C	250 ~ 265
Nozzle Temperature	°C	250 ~ 265	
Mold Temperature	°C	50 ~ 80	
Back Pressure	kg/cm ²	0.2 ~ 0.6	
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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