

SolutionPartner


LUPOY GP1000ML

Injection Molding, PC

Description

General Purpose, Transparency

Application

IT/OA, E&E Housing and Components
Automotive Interior

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	15
Mechanical				
Tensile Strength, 3.2mm @ Yield	50mm/min	ASTM D638	kg/cm ²	630
Tensile Elongation, 3.2mm @ Yield	50mm/min	ASTM D638	%	
@ Break	50mm/min		%	150
Flexural Strength, 3.2mm	10mm/min	ASTM D790	kg/cm ²	1,000
Flexural Modulus, 3.2mm	10mm/min	ASTM D790	kg/cm ²	23,000
IZOD Impact Strength, 3.2mm (Notched)	23 °C -30 °C	ASTM D256	kg·cm/cm kg·cm/cm	75
Rockwell Hardness	R-Scale	ASTM D785	-	118
Thermal				
Heat Deflection Temperature, 6.4mm (Unannealed)	18.6kg 4.6kg	ASTM D648	°C °C	132
Vicat Softening Temperature	5kg, 50 °C/h	ASTM D1525	°C	141
Flammability		UL94		
0.8mm			class	
1.5mm			class	HB
2.5mm			class	
3.2mm			class	HB
Relative Temperature Index		UL 746B		
Electrical			°C	130
Mechanical with Impact			°C	130
Mechanical without Impact			°C	130

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 : May-25, 2018

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Electrical

Comparative Tracking Index(CTI)		IEC 60112	Volts	250
Surface Resistivity		IEC 60093	Ohm	
Volume Resistivity	23 °C	ASTM D257	Ohm·m	2x10 ¹⁵
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
Maximum Moisture Content		%	0.02
Melt Temperature		°C	300 ~ 320
Cylinder Temperature	Rear	°C	260 ~ 280
	Middle	°C	280 ~ 300
	Front	°C	300 ~ 320
Nozzle Temperature		°C	300 ~ 320
Mold Temperature		°C	80 ~ 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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