



# **LUPOY GN5001RFL**

Injection molding, PC/ABS

#### **Description**

Halogen Free Flame Retardent

### **Application**

Industrial / IT product

Properties	Test Condition	Test Method	Unit	Typical Value
Physical				
Specific Gravity		ASTM D792	-	1.19
Molding Shrinkage (Flow), 3.2mm		ASTM D955	%	0.4 ~ 0.6
Melt Flow Rate	250°C/2.16 kg	ASTM D1238	g/10min	10
Mechanical				
Tensile Strength, 3.2mm		ASTM D638		
@ Yield	50mm/min		kg/cm <sup>2</sup>	620
Tensile Elongation, 3.2mm		ASTM D638		
@ Yield	50mm/min		%	
@ Break	50mm/min		%	50
Tensile Modulus, 3.2mm	1mm/min	ASTM D638	kg/cm <sup>2</sup>	
Flexural Strength, 3.2mm	10mm/min	ASTM D790	kg/cm <sup>2</sup>	950
Flexural Modulus, 3.2mm	10mm/min	ASTM D790	kg/cm2	24,000
IZOD Impact Strength, 3.2mm		ASTM D256	<u> </u>	
(Notched)	23℃		kg·cm/cm	65
	-30℃		kg·cm/cm	
Rockwell Hardness	R-Scale	ASTM D785	-	
7 <b>1 1</b>				
Thermal Heat Deflection Temperature, 6.4mm		ASTM D648		
(Unannealed)	19 6kg	ASTM D046	$^{\circ}\!\mathbb{C}$	
(Unannealed)	18.6kg		°C	105
Vicat Softening Temperature	4.6kg	ASTM D1525		103
vicat Softening Temperature	5kg, 50 °C/h	ASTM D1323	°C	
Ball Pressure Temperature		IEC 60695-10-2	°C	
Burning Rate, 3.2mm		FMVSS 302	mm	
Flammability		UL94		
0.7mm		CL)T	class	
1.2mm			class	V0
1.5mm			class	V0 V0
3.0mm			class	V0
Relative Temperature Index		UL 746B		
Electrical		OL /40D	$^{\circ}$	80
Mechanical with Impact			$^{\circ}\!\mathbb{C}$	80
Mechanical without Impact			$^{\circ}\!\mathbb{C}$	85

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.

Updated: April-09, 2012

All properties, except melt flow rate are measured on injection molulded specimens and after 48 hours storage at 23 °C, 50% relative humidty.

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#### **Electrical**

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℃	ASTM D495	Ohm·cm	
Dielectric Strength, 1mm	23℃	ASTM D149	kV/mm	
Dielectric Constant (106 Hz)	23℃	ASTM D150	sec	

Note) Typical values are only for material selection purpose, and variation within normal tolerances are for various colors.

#### Processing Guide (Extrusion Molding)

Processing Parameters		Unit	Value
Drying Temperature		C	75 ~ 85
Drying Time		hrs	3~4
Minimum Moisture Content		%	0.02
Melt Temperature		$^{\circ}$ C	235 ~ 265
Barrel Temperature	Rear	$^{\circ}$	220 ~ 240
	Middle	$^{\circ}$ C	235 ~ 255
	Front	$^{\circ}\!\mathbb{C}$	250 ~ 265
Nozzle Temperature		$^{\circ}\mathbb{C}$	230 ~ 270
Mold Temperature		$^{\circ}\mathbb{C}$	60-90
Back Pressure		kg/cm2	0.2-0.6
Screw Speed		rpm	40-70

Note) Back Pressure & Screw Speed are only mentioned as general guidelines.

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These may not apply or need adjustment in specific situations such as low shot sizes, thin wall molding and gas-assist molding.