

# LUCEL GC210

Injection Molding, POM+GF10%

## Description

High Rigidity

## Application

Casings of Pump and Pivot Bearings

Properties	Test Condition	Test Method	Unit	Typical Value
<b>Physical</b>				
Specific Gravity		ASTM D792	-	1.48
Molding Shrinkage (Flow), 3.2mm		ASTM D955	%	0.6 ~ 1.1
Melt Flow Rate	190 °C/2.16kg	ASTM D1238	g/10min	15
<b>Mechanical</b>				
Tensile Strength, 3.2mm @ Yield	5mm/min	ASTM D638	kg/cm <sup>2</sup>	1,000
Tensile Elongation, 3.2mm @ Break	5mm/min	ASTM D638	%	5
Flexural Strength, 3.2mm	1.3mm/min	ASTM D790	kg/cm <sup>2</sup>	1,300
Flexural Modulus, 3.2mm	1.3mm/min	ASTM D790	kg/cm <sup>2</sup>	50,000
IZOD Impact Strength, 6.4mm (Notched)	23 °C	ASTM D256	kg·cm/cm	5.0
Rockwell Hardness	R-Scale	ASTM D785	-	83
<b>Thermal</b>				
Heat Deflection Temperature, 6.4mm (Unannealed)	18.6kg 4.6kg	ASTM D648	°C °C	160 165
Flammability		UL94		
0.75mm			class	HB
1.5mm			class	HB
2.5mm			class	
3.0mm			class	HB
<b>Electrical</b>				
Dissipation Factor	1MHz	IEC 60250	10 <sup>-4</sup>	
Surface Resistivity		ASTM D257	Ohm	1*10 <sup>14</sup>
Volume Resistivity	23 °C	ASTM D257	Ohm·cm	1*10 <sup>16</sup>
Dielectric Strength, 1mm	23 °C	ASTM D149	kV/mm	

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 : 9-Nov-09

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### Processing Guide (Injection Molding)

Processing Parameters		Unit	Value
Drying Temperature		°C	90 ~ 110
Drying Time		hrs	2 ~ 3
Minimum Moisture Content		%	0.1
Melt Temperature		°C	210 ~ 220
Cylinder Temperature	Rear	°C	180 ~ 200
	Middle	°C	190 ~ 210
	Front	°C	200 ~ 220
Nozzle Temperature		°C	200 ~ 220
Mold Temperature		°C	60 ~ 100
Back Pressure		kg/cm <sup>2</sup>	0 ~ 41
Screw Speed		rpm	40 ~ 75

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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