

# LUCEL N109LD

Injection Molding, POM

## Description

Chemical resistance

## Application

Copyer, Watch, Clock, VCR, Printer parts, etc.

Properties	Test Condition	Test Method	Unit	Typical Value
<b>Physical</b>				
Specific Gravity		ASTM D792	-	1.41
Molding Shrinkage (Flow), 3.2mm		ASTM D955	%	1.8 ~ 2.1
Melt flow rate		ASTM D1238	g/10min	9
<b>Mechanical</b>				
Tensile Strength, 3.2mm @Yield	10 mm/min	ASTM D638	kg/cm <sup>2</sup>	620
Tensile Elongation, 3.2mm @Break	10 mm/min	ASTM D638	%	65
Flexural Strength, 6.4mm	2.8 mm/min	ASTM D790	kg/cm <sup>2</sup>	910
Flexural Modulus, 6.4mm	2.8 mm/min	ASTM D790	kg/cm <sup>2</sup>	26,000
Izod Impact Strength, 6.4mm (Notched)	23 °C	ASTM D256	kg·cm/cm	7.0
Rockwell Hardness	R-Scale	ASTM D785	-	82
<b>Thermal</b>				
Heat Deflection Temperature, 6.4mm	18.6 kg	ASTM D648	°C	110
	4.6 kgf		°C	160
Flammability	0.71 mm	UL94	class	HB
	1.5 mm		class	HB
	2.5 mm		class	HB
	3.0 mm		class	HB
<b>Electrical</b>				
Dissipation factor	1 MHz	ASTM D150		3.8
Surface Resistivity		ASTM D257	Ohm	1 x 10 <sup>16</sup>
Volume Resistivity	23 °C	ASTM D257	Ohm·cm	1 x 10 <sup>14</sup>
Dielectric Strength	23 °C	ASTM D149	kV/mm	24

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### Processing Guide (Injection Molding)

Processing Parameters	Unit	Value
<b>[Pre-drying]</b>		
Drying Temperature	°C	90 ~ 110
Drying Time	hrs	3 ~ 6
Maximum Moisture Content	%	0.1
<b>[Temperature]</b>		
Mold temperature	°C	60 ~ 80
Cylinder Temperature	Rear	160 ~ 180
	Middle	180 ~ 200
	Front	190 ~ 200
Nozzle Temperature	°C	190 ~ 200
Back Pressure	bar	41 ~ 82
Screw Speed	mm/s	50 ~ 100

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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