

LUCEL N109LD

Injection Molding, POM

Description

Chemical Resistance

Application

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

Properties	Test Condition	Test Method	Unit	Typical Value
Physical				
Specific Gravity		ASTM D792	-	1.41
Molding Shrinkage (Flow), 3.2mm		ASTM D955	%	1.8 ~ 2.1
Melt Flow Rate	190°C/2.16kg	ASTM D1238	g/10min	9
Mechanical				
Tensile Strength, 3.2mm @ Yield	10mm/min	ASTM D638	kg/cm ²	620
Tensile Elongation, 3.2mm @ Break	10mm/min	ASTM D638	%	65
Flexural Strength, 6.4mm	2.8mm/min	ASTM D790	kg/cm ²	910
Flexural Modulus, 6.4mm	2.8mm/min	ASTM D790	kg/cm ²	26,000
IZOD Impact Strength, 6.4mm (Notched)	23°C	ASTM D256	kg·cm/cm	7.0
Rockwell Hardness	R-Scale	ASTM D785	-	82
Thermal				
Heat Deflection Temperature, 6.4mm (Unannealed)	18.6kg 4.6kg	ASTM D648	°C °C	110 160
Flammability		UL94		
0.71mm			class	HB
1.5mm			class	HB
2.5mm			class	
3.0mm			class	HB
Electrical				
Dissipation Factor	1MHz	ASTM D150	-	3.8
Surface Resistivity		ASTM D257	Ohm	1*10 ¹⁶
Volume Resistivity	23°C	ASTM D257	Ohm·cm	1*10 ¹⁴
Dielectric Strength, 1mm	23°C	ASTM D149	kV/mm	24

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 moulded specimens and after 48 hours storage at 23°C, 50% relative humidity.

Updated : 9-Nov-09

The information contained herein, including, but not limited to, data, statements and typical values, are given in good faith. LG Chem makes no warranty or guarantee, expressed or implied, (i) that the result described herein will be obtained under end - use conditions, or (ii) as to the effectiveness or safety of any design incorporating LG Chem materials, products, recommendations or advice. Further, any information contained herein shall not be construed as a part of legally binding offer. Especially, the typical values should be regarded as reference values only and not as binding minimum values. Each user bear full responsibility for making its own determination as to the suitability of LG Chem's materials, products, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating LG Chem material or products will be safe and suitable for use under end - use conditions. The data contained herein can be changed without notice as a result of the quality improvement of the products.

LUCEL N109LD

Injection Molding, POM

Description

Chemical Resistance

Application

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

Processing Guide (Injection Molding)

Processing Parameters	Unit	Value	
Drying Temperature	°C	90 ~ 110	
Drying Time	hrs	3 ~ 6	
Minimum Moisture Content	%	0.1	
Melt Temperature	°C	190 ~ 200	
Cylinder Temperature	Rear	°C	160 ~ 180
	Middle	°C	180 ~ 200
	Front	°C	190 ~ 200
Nozzle Temperature	°C	190 ~ 200	
Mold Temperature	°C	60 ~ 80	
Back Pressure	kg/cm ²	41 ~ 82	
Screw Speed	rpm	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.