

SolutionPartner


LUCEL N109WR

Injection Molding, POM

Description

Chemical resistance

Application

Automotive Air-conditioner Valve, Fuel Tank Cap, 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		ASTM D1238	g/10min	9
Mechanical				
Tensile Strength, 3.2mm		ASTM D638		
@Yield	10 mm/min		kg/cm ²	620
Tensile Elongation, 3.2mm		ASTM D638		
@Break	10 mm/min		%	65
Flexural Strength, 6.4mm	2.8 mm/min	ASTM D790	kg/cm ²	910
Flexural Modulus, 6.4mm	2.8 mm/min	ASTM D790	kg/cm ²	26,000
Izod Impact Strength, 6.4mm		ASTM D256		
(Notched)	23 °C		kg·cm/cm	7.0
Rockwell Hardness	R-Scale	ASTM D785	-	82
Thermal				
Heat Deflection Temperature, 6.4mm		ASTM D648		
	18.6 kg		°C	110
	4.6 kgf		°C	160
Flammability		UL94		
	0.71 mm		class	HB
	1.5 mm		class	HB
	2.5 mm		class	
	3.0 mm		class	HB
Electrical				
Dissipation factor		ASTM D150		
	1 MHz			3.8
Surface Resistivity		ASTM D257	Ohm	1 x 10 ¹⁶
Volume Resistivity	23 °C	ASTM D257	Ohm·cm	1 x 10 ¹⁴
Dielectric Strength	23 °C	ASTM D149	kV/mm	24

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.

SolutionPartner


LUCEL N109WR

Injection Molding, POM

Description

Chemical resistance

Application

Automotive Air-conditioner Valve, Fuel Tank Cap, etc.

Processing Guide (Injection Molding)

Processing Parameters		Unit	Value
[Pre-drying]			
Drying Temperature		°C	90 ~ 110
Drying Time		hrs	3 ~ 6
Maximum Moisture Content		%	0.1
[Temperature]			
Mold temperature		°C	60 ~ 80
Cylinder Temperature	Rear		160 ~ 180
	Middle	°C	180 ~ 200
	Front	°C	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.

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.