

Lucel® N109LD

Acetal (POM) Copolymer
LG Chem Ltd.

PROSPECTOR®

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Technical Data

Product Description

Chemical Resistance

Application

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

General

Material Status	• Commercial: Active
Literature ¹	• Technical Datasheet (English)
UL Yellow Card ²	• E67171-248302 • E67171-248303
Search for UL Yellow Card	• LG Chem Ltd. • Lucel®
Availability	• Asia Pacific • Europe • Latin America • North America
Features	• Chemical Resistant
Uses	• Business Equipment • Electrical/Electronic Applications • Printer Parts
Automotive Specifications	• CHRYSLER MS-DB-100 CPN4540 Color: Non-matched Color • GM EDS-M-5201-11 • GM GMP.POM.005 • GM GMW22P-POM-C2 • IMDS ID 5584859
Processing Method	• Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.41	1.41 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	9.0 g/10 min	9.0 g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.126 in (3.20 mm))	0.018 to 0.021 in/in	1.8 to 2.1 %	ASTM D955
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength ⁴ (Yield, 0.126 in (3.20 mm))	8820 psi	60.8 MPa	ASTM D638
Tensile Elongation ⁴ Break, 0.126 in (3.20 mm)	65 %	65 %	ASTM D638
Flexural Modulus ⁵ (0.252 in (6.40 mm))	370000 psi	2550 MPa	ASTM D790
Flexural Strength ⁵ (0.126 in (3.20 mm))	12900 psi	89.2 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact 73°F (23°C), 0.252 in (6.40 mm)	1.3 ft-lb/in	69 J/m	ASTM D256
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (R-Scale)	82	82	ASTM D785
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed, 0.252 in (6.40 mm)	320 °F	160 °C	
264 psi (1.8 MPa), Unannealed, 0.252 in (6.40 mm)	230 °F	110 °C	
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Surface Resistivity	1.0E+16 ohms	1.0E+16 ohms	ASTM D257
Volume Resistivity (73°F (23°C))	1.0E+14 ohms·cm	1.0E+14 ohms·cm	ASTM D257
Dielectric Strength			ASTM D149
73°F (23°C), 0.0394 in (1.00 mm)	610 V/mil	24 kV/mm	
Dissipation Factor (1 MHz)	3.8E-4	3.8E-4	ASTM D150



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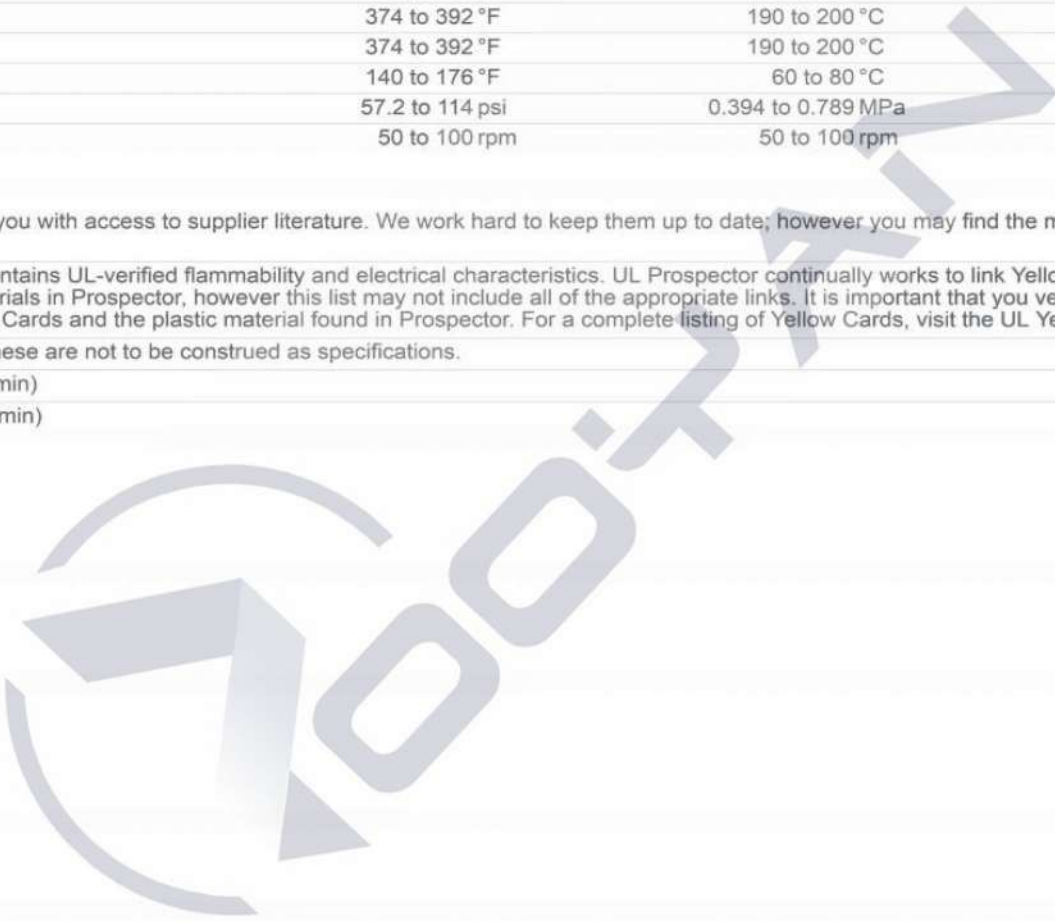
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Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating			UL 94
0.028 in (0.71 mm)	HB	HB	
0.06 in (1.5 mm)	HB	HB	
0.10 in (2.5 mm)	HB	HB	
0.12 in (3.0 mm)	HB	HB	

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	194 to 230 °F	90 to 110 °C
Drying Time	3.0 to 6.0 hr	3.0 to 6.0 hr
Minimum Moisture Content	0.10 %	0.10 %
Rear Temperature	320 to 356 °F	160 to 180 °C
Middle Temperature	356 to 392 °F	180 to 200 °C
Front Temperature	374 to 392 °F	190 to 200 °C
Nozzle Temperature	374 to 392 °F	190 to 200 °C
Mold Temperature	140 to 176 °F	60 to 80 °C
Back Pressure	57.2 to 114 psi	0.394 to 0.789 MPa
Screw Speed	50 to 100 rpm	50 to 100 rpm

Notes

- ¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.
- ² A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.
- ³ Typical properties: these are not to be construed as specifications.
- ⁴ 0.39 in/min (10 mm/min)
- ⁵ 0.11 in/min (2.8 mm/min)



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Where to Buy

Supplier

LG Chem Ltd.
Englewood Cliffs, NJ USA
Telephone: 201-816-2302
Web: <http://www.chemwide.com/>

Distributor

ALBIS Plastic

ALBIS Plastic is a global distribution and compounding company. Contact ALBIS Plastic for availability of individual products per country.

Telephone: +49-40-78105-0
Web: <http://www.albis.com/>
Availability: Turkey

Resin Resource, Inc.

Telephone: 877-652-3431
Web: <http://www.resinresourceinc.com/>
Availability: North America

Southland Polymers

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Availability: Central America, North America, South America

