

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](#)

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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 66 psi (0.45 MPa), Unannealed, 0.252 in (6.40 mm) 264 psi (1.8 MPa), Unannealed, 0.252 in (6.40 mm)	320 °F 230 °F	160 °C 110 °C	ASTM D648
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 73°F (23°C), 0.0394 in (1.00 mm)	610 V/mil	24 kV/mm	ASTM D149
Dissipation Factor (1 MHz)	3.8E-4	3.8E-4	ASTM D150

