

Lucel® N145LD

Acetal (POM) Copolymer

LG Chem Ltd.

Message:

LUCEL N145-LD is a crystalline resin, which shows excellent mechanical thermal and chemical properties in a wide range of temperature for an extended period. In addition it offers good self-lubrication, friction-resistance and abrasion-resistance.

General Information			
UL YellowCard	E67171-248318		
Features	Fatigue Resistant		
	Good Abrasion Resistance		
	Good Chemical Resistance		
	Good Creep Resistance		
	Good Dimensional Stability		
	Good Flow		
	Good Moldability		
	Good Thermal Stability		
Uses	Automotive Applications		
	Electrical/Electronic Applications		
	Gears		
UL File Number	E67171		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.41	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	45	g/10 min	ASTM D1238
Molding Shrinkage - Flow	1.8 to 2.1	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	82		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ¹ (Yield)	62.7	MPa	ASTM D638
Tensile Elongation (Break)	50	%	ASTM D638
Flexural Modulus ²	2660	MPa	ASTM D790
Flexural Strength ³ (Yield)	93.8	MPa	ASTM D790
Coefficient of Friction			ASTM D1894
vs. Itself - Dynamic	0.16		
vs. Itself - Static	0.12		

Taber Abrasion Resistance (1000 Cycles, 1000 g, CS-17 Wheel)	14.0	mg	ASTM D1044
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	54	J/m	ASTM D256
Unnotched Izod Impact	640	J/m	ASTM D256
Reverse Notch Izod Impact	650	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Annealed, 6.35 mm	160	°C	
1.8 MPa, Unannealed, 6.35 mm	110	°C	
CLTE - Flow (20 to 80°C)	1.0E-4	cm/cm/°C	ASTM D696
RTI Elec			UL 746
0.710 mm	110	°C	
1.50 mm	110	°C	
3.00 mm	110	°C	
RTI Imp			UL 746
0.710 mm	95.0	°C	
1.50 mm	95.0	°C	
3.00 mm	95.0	°C	
RTI Str			UL 746
0.710 mm	90.0	°C	
1.50 mm	95.0	°C	
3.00 mm	100	°C	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+14	ohms	ASTM D257
Volume Resistivity	1.0E+16	ohms · cm	ASTM D257
Dielectric Strength	24	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	3.80		ASTM D150
Dissipation Factor (1 MHz)	7.0E-3		ASTM D150
Arc Resistance (3.00 mm)	PLC 5		ASTM D495
Comparative Tracking Index (CTI) (3.00 mm)	PLC 0		UL 746
High Amp Arc Ignition (HAI)			UL 746
0.710 mm	PLC 0		
1.50 mm	PLC 0		
3.00 mm	PLC 0		
High Voltage Arc Tracking Rate (HVTR) (3.00 mm)	PLC 0		UL 746
Hot-wire Ignition (HWI)			UL 746
0.710 mm	PLC 5		
1.50 mm	PLC 5		
3.00 mm	PLC 4		
Flammability	Nominal Value	Unit	Test Method

Flame Rating		UL 94
0.710 mm, ALL	HB	
1.50 mm, ALL	HB	
3.00 mm, ALL	HB	
Injection	Nominal Value	Unit
Drying Temperature	90.0 to 110	°C
Drying Time	3.0 to 6.0	hr
Rear Temperature	160 to 180	°C
Middle Temperature	180 to 200	°C
Front Temperature	190 to 200	°C
Nozzle Temperature	190 to 200	°C
Processing (Melt) Temp	180 to 200	°C
Melt Temperature (Aim)	190	°C
Mold Temperature	60.0 to 80.0	°C
Injection Pressure	68.6 to 118	MPa
Back Pressure	3.92 to 7.84	MPa
Screw Speed	50 to 100	rpm
NOTE		
1.	50 mm/min	
2.	15 mm/min	
3.	15 mm/min	

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China



WECHAT