

LNPTM ELCRINTM EXL9410KG

(ER017396)

DESCRIPTION

LNP ELCRIN EXL9410KG is an opaque polycarbonate (PC) siloxane copolymer resin, that incorporates renewable feedstock through ISCC+ mass-balance certification, offers extreme low temperature (-50 C) ductility in combination with excellent processability. This medium flow resin features UL 94 V0 1.5mm rating with non-chlorinated, non-brominated flame-retardant agents for wide range of colors. EXL9410KG is an excellent candidate for a broad range of applications such as mobile phones, tablets, industrial housings, and electric vehicle supply equipment (EVSE) housings.

GENERAL INFORMATION	
Features	Flame Retardant, Good Processability, Amorphous, Bio-Renewable, Impact resistant, Low temperature impact, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Consumer	Consumer Goods
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20260904

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Strain, Break			
Type I, 50 mm/min	100	%	ASTM D638
50 mm/min	125	%	ISO 527
Tensile Strain, Yield			
Type I, 50 mm/min	5	%	ASTM D638
50 mm/min	5	%	ISO 527
Tensile Stress, brk, Type I, 50 mm/min	60	MPa	ASTM D638
Tensile Stress, yld, Type I, 50 mm/min	53	MPa	ASTM D638
Tensile Modulus, 50 mm/min	2030	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	2160	MPa	ASTM D790
Flexural Stress, yld, 1.3 mm/min, 50 mm span	86	MPa	ASTM D790
Tensile Modulus, 1 mm/min	2020	MPa	ISO 527
Tensile Stress, yield, 50 mm/min	54	MPa	ISO 527
Tensile Stress, break, 50 mm/min	58	MPa	ISO 527
IMPACT ⁽¹⁾			
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	300	kJ/m ²	ISO 179/1eU
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	70	kJ/m ²	ISO 179/1eA
Instrumented Dart Impact Total Energy, 23°C	58	J	ASTM D3763
Izod impact, notched			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
80*10*4 +23°C	66	kJ/m²	ISO 180/1A
23°C	840	J/m	ASTM D256
-30°C	725	J/m	ASTM D256
-50°C	660	J/m	ASTM D256
Izod Impact, Unnotched			
80*10*4 +23°C	215	kJ/m²	ISO 180/1U
THERMAL ⁽¹⁾			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	110	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	123	°C	ISO 75/Bf
HDT, 1.82 MPa, 3.2mm, unannealed	110	°C	ASTM D648
HDT, 0.45 MPa, 3.2 mm, unannealed	123	°C	ASTM D648
Vicat Softening Temp, Rate A/50	136	°C	ASTM D1525
CTE, -40°C to 40°C, flow	6.60E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	7.00E-05	1/°C	ASTM E831
Relative Temp Index, Elec	120	°C	UL 746B
Relative Temp Index, Mech w/impact	110	°C	UL 746B
Relative Temp Index, Mech w/o impact	120	°C	UL 746B
Ball Pressure Test, approximate maximum	120	°C	IEC 60695-10-2
Vicat Softening Temp, Rate B/50	130	°C	ISO 306
PHYSICAL ⁽¹⁾			
Melt Volume Rate, MVR at 300°C/ 1.2 kg	9	cm³/10 min	ISO 1133
Specific Gravity	1.2	-	ASTM D792
Water Absorption, (23°C/Saturated)	0.13	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.4 – 0.8	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.4 – 0.8	%	ASTM D955
Melt Flow Rate, 300°C/ 1.2 kgf	10	g/10 min	ASTM D1238
FLAME CHARACTERISTICS ⁽¹⁾			
UL Recognized, 94V-0 Flame Class Rating ⁽³⁾	≥1.5	mm	UL 94
Glow Wire Ignitability Temperature, 3.0 mm	850	°C	IEC 60695-2-13
Glow Wire Flammability Index, 3.0 mm	960	°C	IEC 60695-2-12
UL Yellow Card Link ⁽³⁾	E207780-10228251	-	-
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	120	°C	
Drying Time	3 – 4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	295 – 315	°C	
Rear - Zone 1 Temperature	270 – 295	°C	
Middle - Zone 2 Temperature	280 – 305	°C	
Front - Zone 3 Temperature	290 – 315	°C	
Nozzle Temperature	290 – 310	°C	
Mold Temperature	70 – 110	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	40 – 70	rpm	
Shot to Cylinder Size	40 – 60	%	
Vent Depth	0.025 – 0.076	mm	

- (1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.
- (2) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.
- (3) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.
- (4) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall

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