

Product Texts

LNP ELCRES CRX9016E is an unfilled, opaque, amorphous Polycarbonate (PC) copolymer resin suitable for extrusion. This non-chlorinated/brominated flame-retardant grade has an UL-94 V0 rating at 1.5 mm in black. It offers excellent low temperature ductility (-60°C) and is UV stabilized providing additional weathering capability. The grade has improved chemical resistance against a range of chemicals and may be an excellent candidate for a variety of mobility and industrial applications that need durability against chemicals.

UL Yellow Card Link: [E45329-104610596](https://www.ulprospector.com/usa/Products/Polycarbonate/104610596)

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	4	cm ³ /10min	ISO 1133
Temperature	300	°C	-
Load	2.16	kg	-
ASTM Data			
Melt Flow Index, MFI	4	g/10min	ASTM D 1238
Temperature	300	°C	-
Load	2.16	kg	-
Mold Shrinkage, MD	0.007	mm/mm	ASTM D 955
Mold Shrinkage, TD	0.007	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2100	MPa	ISO 527
Yield stress	53	MPa	ISO 527
Strain at break	100	%	ISO 527
Flexural modulus, 23°C	2100	MPa	ISO 178
Charpy impact strength, +23°C	N	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	N	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C	70	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	60	kJ/m ²	ISO 179/1eA
Izod impact strength, +23°C	N	kJ/m ²	ISO 180/1U
Izod notched impact strength, +23°C	80	kJ/m ²	ISO 180/1A
Izod notched impact strength	70	kJ/m ²	ISO 180/1A
Temperature	-30	°C	-
ASTM Data			
Tensile Modulus	2100	MPa	ASTM D 638
Tensile Strength at Yield	57	MPa	ASTM D 638
Tensile Strength at Break	66	MPa	ASTM D 638
Elongation at Yield	6	%	ASTM D 638
Elongation at Break	100	%	ASTM D 638
Flexural Modulus	2150	MPa	ASTM D 790
Flexural Strength	85	MPa	ASTM D 790
Izod Impact notched, 1/8 in	890	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	800	J/m	ASTM D 256
Temperature	-30	°C	-
Izod Impact unnotched, 1/8 in	N	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	125	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	138	°C	ISO 75-1/-2
Vicat softening temperature, A	153	°C	ISO 306
Vicat softening temperature, B	145	°C	ISO 306
Coeff. of linear therm. expansion, parallel	75	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	90	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	V-0	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
Yellow Card available	yes	-	-
Burning behav. 5V at thickness h	5VB	class	IEC 60695-11-20

Thickness tested	3.0	mm	-
Yellow Card available	yes	-	-
ASTM Data			
UL 94 Flame rating	V-0	-	UL 94
Thickness tested	1.5	mm	-
Coefficient of Thermal Expansion, MD	75	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	90	E-6/K	ASTM D 696
DTUL @ 66 psi	138	°C	ASTM D 648
DTUL @ 264 psi	125	°C	ASTM D 648
Vicat Temperature	153	°C	ASTM D 1525

Other properties	Value	Unit	Test Standard
Water absorption	0.4	%	Sim. to ISO 62
Humidity absorption	0.15	%	Sim. to ISO 62
Density	1180	kg/m ³	ISO 1183
Water Absorption, 24hr	0.15	%	ASTM D 570
Density	1180	kg/m ³	ASTM D 792

Processing Recommendation Extrusion	Value	Unit	Test Standard
Pre-drying - Temperature	110 - 120	°C	-
Pre-drying - Time	3 - 4	h	-
Processing humidity	≤0.05	%	-
Melt temperature	240 - 280	°C	-
Feed temperature	50 - 70	°C	-
Zone 1	240 - 280	°C	-
Zone 2	240 - 280	°C	-
Zone 3	240 - 280	°C	-
Zone 4	240 - 280	°C	-
Nozzle temperature	230 - 260	°C	-

Characteristics

Processing

Other Extrusion

Delivery form

Black

Additives

Release agent

Special Characteristics

Flame retardant, Halogen-free, High impact or impact modified, U.V. stabilized or stable to weather, Opaque

Features

Amorphous, Ductile, Copolymer

Chemical Resistance

General Chemical Resistance

Applications

Automotive, Electrical and Electronical

Regional Availability

North America, Europe, Asia Pacific, South and Central America