

Product Texts

LNP ELCRES CRX7412U is an unfilled, amorphous Polycarbonate (PC) copolymer resin that offers medium flow, non-chlorinated/brominated flame retardant grade. This grade is available for custom coloring, has UL V0 rating @ 1.2 mm for all colors, and high ductility. The grade has improved chemical resistance against a wide range of disinfectants compared to standard PC/ABS blends and is a good candidate for thin wall applications and hospital/medical equipment.

UL Yellow Card [E45329-104555539](https://www.ul.com/yellow-card/E45329-104555539)

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	12	cm ³ /10min	ISO 1133
Temperature	300	°C	-
Load	1.2	kg	-
ASTM Data			
Melt Flow Index, MFI	13	g/10min	ASTM D 1238
Temperature	300	°C	-
Load	1.2	kg	-
Mold Shrinkage, MD	0.0065	mm/mm	ASTM D 955
Mold Shrinkage, TD	0.0065	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	1950	MPa	ISO 527
Yield stress	48	MPa	ISO 527
Stress at break	56	MPa	ISO 527
Strain at break	100	%	ISO 527
Flexural modulus, 23°C	1900	MPa	ISO 178
Flexural strength	72	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	63	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	52	kJ/m ²	ISO 179/1eA
Izod impact strength, +23°C	N	kJ/m ²	ISO 180/1U
Izod notched impact strength, +23°C	70	kJ/m ²	ISO 180/1A
Izod notched impact strength	66	kJ/m ²	ISO 180/1A
Temperature	-30	°C	-
ASTM Data			
Tensile Modulus	2000	MPa	ASTM D 638
Tensile Strength at Yield	50	MPa	ASTM D 638
Tensile Strength at Break	58	MPa	ASTM D 638
Flexural Modulus	2000	MPa	ASTM D 790
Izod Impact notched, 1/8 in	670	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	550	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	113	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	127	°C	ISO 75-1/-2
Vicat softening temperature, B	129	°C	ISO 306
Coeff. of linear therm. expansion, parallel	80	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	80	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. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	0.6	mm	-

Yellow Card available	yes	-	-
ASTM Data			
UL 94 Flame rating	V-1	-	UL 94
Thickness tested	0.8	mm	-
Coefficient of Thermal Expansion, MD	80	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	80	E-6/K	ASTM D 696
DTUL @ 66 psi	125	°C	ASTM D 648
DTUL @ 264 psi	110	°C	ASTM D 648
Vicat Temperature	129	°C	ASTM D 1525

Electrical properties	Value	Unit	Test Standard
ISO Data			
Comparative tracking index	225	-	IEC 60112

Other properties	Value	Unit	Test Standard
Water absorption	0.4	%	Sim. to ISO 62
Density	1190	kg/m ³	ISO 1183
Density	1190	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	100 - 120	°C	-
Pre-drying - Time	2 - 4	h	-
Processing humidity	≤0.02	%	-
Melt temperature	280 - 320	°C	-
Mold temperature	70 - 100	°C	-
Zone 1	260 - 300	°C	-
Zone 2	270 - 310	°C	-
Zone 3	280 - 320	°C	-
Nozzle temperature	280 - 320	°C	-
Screw speed	50 - 100	rpm	-
Back pressure	0.3 - 0.7	MPa	-

Characteristics

Processing

Injection Molding

Special Characteristics

Flame retardant, Halogen-free, High impact or impact modified

Features

Amorphous, Ductile, Copolymer

Chemical Resistance

General Chemical Resistance

Applications

Medical, Packaging

Regional Availability

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