

LNPT[™] ELCREST[™] CRX9421

DESCRIPTION

LNP ELCRES CRX9421 is a semi-crystalline Polycarbonate (PC) copolymer/Polybutylene Terephthalate (PBT) opaque blend. This grade offers medium flow, UL V0 rating @ 1.5 mm, and high ductility in combination with excellent chemical resistance. It is available for custom coloring and is intended for a wide variety of healthcare applications that need improved chemical resistance.

GENERAL INFORMATION	
Features	Flame Retardant, Chemical Resistance, Impact resistant
Fillers	Unreinforced
Polymer Types	Polycarbonate + PBT (PC+PBT)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Hygiene and Healthcare	General Healthcare

TYPICAL PROPERTY VALUES

Revision 20240508

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yld, Type I, 50 mm/min	44	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	36	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	4	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	59	%	ASTM D638
Tensile Modulus, 50 mm/min	1985	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	1985	MPa	ASTM D790
Flexural Strength, 1.3 mm/min, 50 mm span	72	MPa	ASTM D790
IMPACT ⁽¹⁾			
Izod Impact, notched, 23°C	590	J/m	ASTM D256
Izod Impact, notched, 0°C	230	J/m	ASTM D256
Izod Impact, notched, -30°C	150	J/m	ASTM D256
Izod Impact, unnotched, 23°C	NB	J/m	ASTM D4812
Izod Impact, unnotched, -30°C	NB	J/m	ASTM D4812
Instrumented Dart Impact Total Energy, 23°C	54	J	ASTM D3763
Instrumented Dart Impact Energy @ peak, 23°C	41	J	ASTM D3763
THERMAL ⁽¹⁾			
HDT, 1.82 MPa, 3.2mm, unannealed	66	°C	ASTM D648
HDT, 0.45 MPa, 3.2 mm, unannealed	118	°C	ASTM D648
Vicat Softening Temp, Rate B/50	131	°C	ASTM D1525
Vicat Softening Temp, Rate B/120	132	°C	ASTM D1525
CTE, -40°C to 40°C, flow	8.50E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	1.05E-04	1/°C	ASTM E831
PHYSICAL ⁽¹⁾			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Specific Gravity	1.3	-	ASTM D792
Melt Volume Rate, MVR at 250°C/5 kg	10	cm ³ /10 min	ASTM D1238
Melt Flow Rate, 250°C/5.0 kgf	11.5	g/10 min	ASTM D1238
Mold Shrinkage, flow ⁽²⁾	1.0 – 1.6	%	SABIC method
Mold Shrinkage, xflow ⁽²⁾	0.9 – 1.6	%	SABIC method
FLAME CHARACTERISTICS ⁽³⁾			
UL Yellow Card Link	E121562-104417000	-	-
UL Recognized, 94V-0 Flame Class Rating ⁽³⁾	1.5	mm	UL 94
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	120	°C	
Drying Time	2 – 4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	240 – 255	°C	
Rear - Zone 1 Temperature	225 – 240	°C	
Middle - Zone 2 Temperature	230 – 245	°C	
Front - Zone 3 Temperature	235 – 250	°C	
Nozzle Temperature	240 – 255	°C	
Mold Temperature	50 – 70	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	50 – 100	rpm	
Shot to Cylinder Size	40 – 80	%	
Vent Depth	0.025 – 0.038	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 molding and gas-assist molding.

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