

LNPT[™] ELCRIN[™] CRX1314BT

DESCRIPTION

LNP ELCRIN CRX1314BT is an amorphous PC copolymer resin that incorporates renewable feedstock through ISCC+ mass-balance certification to lower carbon footprint without compromising product performance. Features excellent chemical resistance in combination with excellent impact strength and good optical properties (thin wall transparency). This medium flow resin features transparency to translucency based on thickness and low temperature ductility (-30C). An excellent candidate for a wide variety of transparent and translucent applications that require improved chemical resistance and ductility for electronics, consumer, and industrial applications.

GENERAL INFORMATION

Features	Chemical Resistance, Thin Wall, Amorphous, IR Transparent, Transparent/Translucent, High temperature resistance, Impact resistant, No PFAS intentionally added
Fillers	Unreinforced
Processing Techniques	Injection Molding

INDUSTRY

Consumer
Electrical and Electronics

SUB INDUSTRY

Personal Accessory, Home Appliances, Personal Recreation, Commercial Appliance
Electrical Devices and Displays

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Modulus, 50 mm/min	2150	MPa	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	124	%	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	6.5	%	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	65	MPa	ASTM D638
Tensile Stress, yld, Type I, 50 mm/min	59	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	2250	MPa	ASTM D790
Flexural Stress, yld, 1.3 mm/min, 50 mm span	98	MPa	ASTM D790
IMPACT ⁽¹⁾			
Izod Impact, notched, 23°C	910	J/m	ASTM D256
Izod Impact, notched, -30°C	700	J/m	ASTM D256
THERMAL ⁽¹⁾			
HDT, 1.82 MPa, 3.2mm, unannealed	129	°C	ASTM D648
HDT, 0.45 MPa, 3.2 mm, unannealed	142	°C	ASTM D648
Vicat Softening Temp, Rate B/120	148	°C	ISO 306
PHYSICAL ⁽¹⁾			
Density	1.19	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.1	%	ISO 62
Water Absorption, (23°C/24hrs)	0.2	%	ISO 62-1
Melt Volume Rate, MVR at 300°C/2.16 kg	10	cm ³ /10 min	ASTM D1238
Specific Gravity	1.19	-	ASTM D792
Mold Shrinkage, flow ⁽²⁾	0.5 – 0.9	%	SABIC method

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Melt Flow Rate, 300°C/2.16 kgf	11	g/ 10 min	ASTM D 1238
OPTICAL			
Light Transmission, 1.0 mm	89	%	ASTM D 1003
Haze, 1.0 mm	2	%	ASTM D 1003
FLAME CHARACTERISTICS ⁽³⁾			
UL Recognized, 94HB Flame Class Rating	≥0.75	mm	UL 94
UL Yellow Card Link	E121562-104612026	-	-
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	120	°C	
Drying Time	3 – 4	Hrs	
Drying Time (Cumulative)	12	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	290 – 340	°C	
Rear - Zone 1 Temperature	270 – 320	°C	
Middle - Zone 2 Temperature	280 – 330	°C	
Front - Zone 3 Temperature	290 – 340	°C	
Nozzle Temperature	290 – 340	°C	
Mold Temperature	80 – 105	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	50 – 100	rpm	
Shot to Cylinder Size	40 – 80	%	
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 molding and gas-assist molding.

ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

DISCLAIMER

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