LNP™ ELCRIN™ RCX7246

DESCRIPTION

LNP ELCRIN RCX7246 is an impact modified Polycarbonate (PC) containing 65% PCR content with non-brominated and non-chlorinated FR intended for thin-wall applications requiring excellent impact/flow balance performance.

GENERAL INFORMATION	
Features	Amorphous, Sustainable (Mechanical Recycling), Non Cl/Br flame retardant, Impact resistant
Fillers	Unreinforced
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20240805

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yld, Type I, 50 mm/min	62	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	53	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	4	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	105	%	ASTM D638
Tensile Modulus, 50 mm/min	2600	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	102	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2500	MPa	ASTM D790
Tensile Stress, yield, 50 mm/min	66	MPa	ISO 527
Tensile Stress, break, 50 mm/min	53	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	4	%	ISO 527
Tensile Strain, break, 50 mm/min	77	%	ISO 527
Tensile Modulus, 1 mm/min	2570	MPa	ISO 527
Flexural Strength, 2 mm/min	98	MPa	ISO 178
Flexural Modulus, 2 mm/min	2520	MPa	ISO 178
IMPACT [1]			
Izod Impact, notched, 23°C	690	J/m	ASTM D256
Izod Impact, notched, 0°C	129	J/m	ASTM D256
Izod Impact, notched 80*10*4 +23°C	39	kJ/m²	ISO 180/1A
Instrumented Dart Impact Total Energy, 23°C	61	J	ASTM D3763
THERMAL [1]			
HDT, 1.82 MPa, 3.2mm, unannealed	94	°C	ASTM D648
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	93	°C	ISO 75/Af
CTE, -40°C to 40°C, flow	7.0E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	7.0E-05	1/°C	ASTM E831

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Vicat Softening Temp, Rate B/50	118	°C	ASTM D1525
Relative Temp Index, Elec [2]	80	°C	UL 746B
Relative Temp Index, Mech w/impact [2]	80	°C	UL 746B
Relative Temp Index, Mech w/o impact [2]	80	°C	UL 746B
PHYSICAL [1]			
Specific Gravity	1.20	-	ASTM D792
Melt Flow Rate, 260°C/2.16 kgf	15	g/10 min	ASTM D1238
Melt Flow Rate, 280°C/2.16 kgf	29	g/10 min	ASTM D1238
Mold Shrinkage, flow, 3.2 mm [3]	0.2 – 0.5	%	SABIC method
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E207780-104691780	-	-
UL Recognized, 94V-0 Flame Class Rating	≥0.75	mm	UL 94
INJECTION MOLDING [4]			
Drying Temperature	80 – 90	°C	
Drying Time	3 – 4	Hrs	
Melt Temperature	250 – 300	°C	
Nozzle Temperature	250 – 300	°C	
Front - Zone 3 Temperature	250 – 300	°C	
Middle - Zone 2 Temperature	240 – 265	°C	
Rear - Zone 1 Temperature	230 – 290	°C	
Mold Temperature	60 – 85	°C	

(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) 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.

(3) 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.

(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.

DISCLAIMER