LNP™ ELCRIN™ RBX7227K

DESCRIPTION

LNP ELCRIN RBX7227K (ER017473) resin is an injection moldable impact modified PC blend with non-brominated and non-chlorinated flame retardant. It contains 70% post-consumer recycled (PCR) polycarbonate content. Available in black color only.

GENERAL INFORMATION	
Additives	Flame Retardant
Applications	Mobile Phone, Electronic Components, Personal Computing
Features	Easy Flow, Mechanical Recycling, Non Cl/Br flame retardant, No PFAS intentionally added (PCR contains <50ppm total organic fluorine content)
Brands	ELCRIN™
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Consumer	Personal Accessory
Electrical and Electronics	Electronic Components

TYPICAL PROPERTY VALUES

Revision 20260904

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	49	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	4.4	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	75	%	ASTM D638
Tensile Modulus, 5 mm/min	2400	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	99	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2440	MPa	ASTM D790
IMPACT [1]			
Izod Impact, notched, 23°C	685	J/m	ASTM D256
Izod Impact, notched, -30°C	190	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	49	J	ASTM D3763
Izod Impact, notched 80*10*3 +23°C	61	kJ/m²	ISO 180/1A
THERMAL [1]			
Vicat Softening Temp, Rate B/50	110	°C	ASTM D1525
HDT, 1.82 MPa, 3.2mm, unannealed	92	°C	ASTM D648
HDT, 0.45 MPa, 6.4 mm, unannealed	101	°C	ASTM D648
HDT, 1.82 MPa, 6.4 mm, unannealed	98	°C	ASTM D648
CTE, -40°C to 40°C, flow	6.7E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	7.0E-05	1/°C	ASTM E831
Relative Temp Index, Elec [2]	80	°C	UL 746B

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
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	120	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm [3]	0.4 – 0.6	%	SABIC method
Melt Flow Rate, 260°C/2.16 kgf	17	g/10 min	ASTM D1238
Water Absorption, (23°C/saturated)	0.1	%	ISO 62-1
ELECTRICAL [1]			
High Amp Arc Ignition (HAI), PLC 0	≥3	mm	UL 746A
Comparative Tracking Index (UL) {PLC}	3	PLC Code	UL 746A
Hot-Wire Ignition (HWI), PLC 0	≥3	mm	UL 746A
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	104706521	-	-
UL Recognized, 94V-0 Flame Class Rating	≥1.2	mm	UL 94
UL Recognized, 94V-1 Flame Class Rating	≥1.0	mm	UL 94
UL Recognized, 94V-2 Flame Class Rating	≥0.4	mm	UL 94
INJECTION MOLDING [4]			
Drying Temperature	80 – 90	°C	
Drying Time	2 – 4	Hrs	
Maximum Moisture Content	.02	%	
Melt Temperature	250 – 300	°C	
Nozzle Temperature	250 – 300	°C	
Front - Zone 3 Temperature	250 – 300	°C	
Middle - Zone 2 Temperature	240 – 290	°C	
Rear - Zone 1 Temperature	230 – 280	°C	
Hopper Temperature	60 – 80	°C	
Mold Temperature	60 – 85	°C	
Vent Depth	0.03 - 0.075	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) 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.,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.

(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 unintentionally PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

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