LNP™ ELCRIN™ RCM6247

DESCRIPTION

LNP ELCRIN RCM6247 is an injection moldable filled PC/ABS with non-brominated and non-chlorinated flame retardant. It contains 65% post consumer recycle content with a UL94 V0 rating 0.6mm. Developed for thin Wall applications that require high flow and high stiffness performance.

GENERAL INFORMATION	
Features	Mechanical Recycling, Non Cl/Br flame retardant, Dimensional stability, High stiffness/Strength
Fillers	Mineral
Polymer Types	Polycarbonate + ABS (PC+ABS)

INDUSTRY	SUB INDUSTRY
Consumer	Commercial Appliance
Electrical and Electronics	Electronic Components, Wireless Communication

TYPICAL PROPERTY VALUES

Revision 20240607

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yld, Type I, 5 mm/min	56	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	40	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	3.1	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	>45	%	ASTM D638
Tensile Modulus, 5 mm/min	3200	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	94	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	3050	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	57	MPa	ISO 527
Tensile Stress, break, 5 mm/min	42	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3.1	%	ISO 527
Tensile Strain, break, 5 mm/min	>45	%	ISO 527
Tensile Modulus, 1 mm/min	3200	MPa	ISO 527
Flexural Strength, 2 mm/min	94	MPa	ISO 178
Flexural Modulus, 2 mm/min	3100	MPa	ISO 178
IMPACT [1]			
Izod Impact, notched, 23°C	400	J/m	ASTM D256
Izod Impact, notched 80*10*3 +23°C	26	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 +23°C	20	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	20	kJ/m²	ISO 179/1eA
Instrumented Dart Impact Total Energy, 23°C	56	J	ASTM D3763
THERMAL [1]			
CTE, 23°C to 80°C, flow	6.5E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, xflow	8.5E-05	1/°C	ISO 11359-2
HDT, 0.45 MPa, 3.2 mm, unannealed	97	°C	ASTM D648

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 1.82 MPa, 3.2mm, unannealed	89	°C	ASTM D648
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	89	°C	ISO 75/Af
Relative Temp Index, Elec [2]	60	°C	UL 746B
Relative Temp Index, Mech w/impact [2]	60	°C	UL 746B
Relative Temp Index, Mech w/o impact [2]	60	°C	UL 746B
PHYSICAL [1]			
Specific Gravity	1.22	-	ASTM D792
Melt Flow Rate, 260°C/2.16 kgf	15.5	g/10 min	ASTM D1238
Mold Shrinkage, flow, 3.2 mm [3]	0.5 – 0.7	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm [3]	0.5 – 0.7	%	SABIC method
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E207780-104633708	-	-
UL Recognized, 94V-0 Flame Class Rating	≥0.6	mm	UL 94
INJECTION MOLDING [4]			
Drying Temperature	80 – 90	°C	
Drying Time	3 – 4	Hrs	
Drying Time (Cumulative)	8	Hrs	
Maximum Moisture Content	0.04	%	
Melt Temperature	245 – 285	°C	
Nozzle Temperature	245 – 285	°C	
Front - Zone 3 Temperature	245 – 285	°C	
Middle - Zone 2 Temperature	220 – 275	°C	
Rear - Zone 1 Temperature	220 – 265	°C	
Mold Temperature	60 – 90	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	40 – 70	rpm	
Shot to Cylinder Size	30 – 80	%	
Vent Depth	0.038 – 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) 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.

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