LNP™ ELCRIN™ DM0051RC

ER015544

DESCRIPTION

LNP ELCRIN DM0051RC compound is based on Polycarbonate (PC) resin containing minerals. Added features include: High Modulus, Good Flow, Good Ductility, Low Warpage and Non-Brominated & Non-Chlorinated Flame Retardant. This product has a PCR content up to 50%

GENERAL INFORMATION	
Features	Flame Retardant, High Flow, Low Warpage, Mechanical Recycling, Non Cl/Br flame retardant, High stiffness/Strength
Fillers	Mineral
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Consumer	Home Appliances, Commercial Appliance
Electrical and Electronics	Electrical Devices and Displays

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yld, Type I, 5 mm/min	59	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	38	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	2.8	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	5.2	%	ASTM D638
Tensile Modulus, 5 mm/min	5800	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	98	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	5110	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	58	MPa	ISO 527
Tensile Stress, break, 5 mm/min	35	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2.8	%	ISO 527
Tensile Strain, break, 5 mm/min	5	%	ISO 527
Tensile Modulus, 1 mm/min	5750	MPa	ISO 527
IMPACT [1]			
Izod Impact, notched, 23°C	58	J/m	ASTM D256
Izod Impact, notched, -30°C	38	J/m	ASTM D256
Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm	4.6	kJ/m²	ISO 179/1eA
Instrumented Dart Impact Total Energy, 23°C	15	J	ASTM D3763
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	90	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	82	°C	ASTM D648
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	84	°C	ISO 75/Af

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, 23°C to 80°C, flow	3.8E-5	1/°C	ISO 11359-2
CTE, 23°C to 80°C, xflow	7.4E-5	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	95	°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	1.39	-	ASTM D792
Density	1.39	g/cm³	ISO 1183
Melt Flow Rate, 260°C/2.16 kgf	9.5	g/10 min	ASTM D1238
Mold Shrinkage, flow, 24 hrs	0.25	%	ISO 294
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E207780-104587521	-	-
UL Recognized, 94V-0 Flame Class Rating	≥1.2	mm	UL 94
INJECTION MOLDING [3]			
Drying Temperature	90 – 105	°C	
Drying Time	4 – 6	Hrs	
Melt Temperature	270 – 300	°C	
Nozzle Temperature	280 – 300	°C	
Front - Zone 3 Temperature	270 – 290	°C	
Middle - Zone 2 Temperature	260 – 280	°C	
Rear - Zone 1 Temperature	250 – 270	°C	
Mold Temperature	70 – 90	°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) 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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