LNP™ ELCRIN™ D353RCC

ER017077

DESCRIPTION

LNP ELCRIN D353RCC compound is based on recycled Polycarbonate (PC) resin containing 30% glass fiber. Added features of this grade include: Low Warpage, Good Ductility, Good Processability, Non-Brominated & Non-Chlorinated Flame Retardant. Post-Consumer Recycling (PCR) Polycarbonate content up to 40%. UL94 V2 at 0.3 mm and V0 at 1.5 mm in black only.

GENERAL INFORMATION	
Features	No PFAS intentionally added (PCR contains <50ppm total organic fluorine content)
Fillers	Glass Fiber (Total fluorine >50ppm only from inorganic fluorine)
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive EV Batteries
Electrical and Electronics	Electronic Components, Mobile Phone - Computer - Tablets, Speaker - Earphone, Wireless Communication
Industrial	Electrical, Industrial General

TYPICAL PROPERTY VALUES

Revision 20260908

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, break, 5 mm/min	124	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.3	%	ISO 527
Tensile Modulus, 1 mm/min	8600	MPa	ISO 527
Flexural Modulus, 2 mm/min	8600	MPa	ISO 178
Flexural Stress, break, 2 mm/min	189	MPa	ISO 178
Tensile Modulus, 5 mm/min	8800	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.5	%	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	124	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	8300	MPa	ASTM D790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	190	MPa	ASTM D790
IMPACT [1]			
Izod Impact, notched 80*10*4 +23°C	18.5	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	51.4	kJ/m²	ISO 180/1U
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	19.1	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	58.3	kJ/m²	ISO 179/1eU
Izod Impact, notched, 23°C	160	J/m	ASTM D256
Izod Impact, unnotched, 23°C	640	J/m	ASTM D4812
THERMAL [1]			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	115	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	120	°C	ISO 75/Bf

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 1.82 MPa, 3.2mm, unannealed	115	°C	ASTM D648
Vicat Softening Temp, Rate B/120	125	°C	ISO 306
CTE			
0°C to 100°C, flow	2.2E-05	1/°C	ASTM E831
Relative Temp Index, Elec	80	°C	UL 746B
Relative Temp Index, Mech w/impact	80	°C	UL 746B
Relative Temp Index, Mech w/o impact	80	°C	UL 746B
PHYSICAL (1)			
Mold Shrinkage, flow (2)	0.1 – 0.3	%	SABIC method
Mold Shrinkage, xflow (2)	0.1 – 0.3	%	SABIC method
Melt Volume Rate, MVR at 300°C/1.2 kg	14	cm³/10 min	ISO 1133
Specific Gravity	1.423	-	ASTM D792
FLAME CHARACTERISTICS			
UL Recognized, 94V-2 Flame Class Rating	0.3	mm	UL 94
UL Recognized, 94V-0 Flame Class Rating	1.5	mm	UL 94
UL Yellow Card Link	ER017077(BK55), D353RCC(BK55) | UL Product iQ	-	-
INJECTION MOLDING (3)			
Drying Temperature	110 – 120	°C	
Drying Time	4 – 6	Hrs	
Melt Temperature	285 – 310	°C	
Rear - Zone 1 Temperature	260 – 280	°C	
Middle - Zone 2 Temperature	270 – 290	°C	
Front - Zone 3 Temperature	280 – 300	°C	
Nozzle Temperature	285 – 305	°C	
Mold Temperature	80 – 110	°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) 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) 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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