LNP™ ELCRIN™ DF006PRC1

DESCRIPTION

LNP ELCRIN DF006PRC1 is a compound based on Recycle Polycarbonate resin containing PIR Glass Fiber. Added features of this material include: high modulus, good flatness, good ductility. Recycling content up to 50%.

GENERAL INFORMATION	
Features	High Flow, High stiffness/Strength, Impact resistant, No PFAS intentionally added
Fillers	Glass Fiber
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Mobile Phone - Computer - Tablets

TYPICAL PROPERTY VALUES

Revision 20261103

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, brk, Type I, 5 mm/min	117	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.8	%	ASTM D638
Tensile Modulus, 5 mm/min	7380	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	184	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	7410	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	110	MPa	ISO 527
Tensile Strain, break, 5 mm/min	3	%	ISO 527
Tensile Modulus, 1 mm/min	7300	MPa	ISO 527
Flexural Strength, 2 mm/min	165	MPa	ISO 178
Flexural Modulus, 2 mm/min	6800	MPa	ISO 178
IMPACT [1]			
Izod impact, notched			
-20°C	140	J/m	ASTM D256
23°C	170	J/m	ASTM D256
80*10*4 +23°C	13	kJ/m²	ISO 180/1A
Izod Impact, Unnotched			
23°C	680	J/m	ASTM D4812
80*10*4 +23°C	52	kJ/m²	ISO 180/1U
THERMAL [1]			
HDT, 1.82 MPa, 3.2mm, unannealed	131	°C	ASTM D648
HDT, 0.45 MPa, 3.2 mm, unannealed	132	°C	ASTM D648
HDT, 1.82 MPa, 6.4 mm, unannealed	128	°C	ASTM D648
HDT, 0.45 MPa, 6.4 mm, unannealed	130	°C	ASTM D648
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	128	°C	ISO 75/Af

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	130	°C	ISO 75/Bf
PHYSICAL [1]			
Specific Gravity	1.4	-	ASTM D792
Density	1.4	g/cm³	ISO 1183
Melt Volume Rate, MVR at 300°C/1.2 kg	8	cm³/10 min	ISO 1133
Mold Shrinkage, flow [2]	0.3 – 0.5	%	SABIC method
Mold Shrinkage, xflow [2]	0.3 – 0.5	%	SABIC method
INJECTION MOLDING [3]			
Drying Temperature	110 – 120	°C	
Drying Time	4 – 6	Hrs	
Melt Temperature	285 – 310	°C	
Nozzle Temperature	285 – 305	°C	
Front - Zone 3 Temperature	280 – 300	°C	
Middle - Zone 2 Temperature	270 – 290	°C	
Rear - Zone 1 Temperature	260 – 280	°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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