

LNPT[™] ELCRIN[™] ENH2900RCC

DESCRIPTION

LNP ELCRIN ENH2900RCC compound is based on Polycarbonate / Polybutylene Terephthalate (PC/PBT) blend, with 40% post-consumer recycle (PCR) Polycarbonate content. Added features of this grade include: Non-Chlorinated, Non-Brominated Flame Retardant, Good Flow, Impact Modified and Improved Chemical Resistance.

GENERAL INFORMATION	
Features	Chemical Resistance, Sustainable (Mechanical Recycling), Non Cl/Br flame retardant, Impact resistant
Fillers	Unreinforced
Polymer Types	Polycarbonate + PBT (PC+PBT)
Processing Techniques	Injection Molding
INDUSTRY	SUB INDUSTRY
Consumer	Home Appliances, Commercial Appliance
Electrical and Electronics	Speaker - Earphone, Wireless Communication

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yld, Type I, 50 mm/min	59	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	50	MPa	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	94	%	ASTM D638
Tensile Modulus, 50 mm/min	2250	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	89	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2350	MPa	ASTM D790
IMPACT ⁽¹⁾			
Izod Impact, notched, 0°C	700	J/m	ASTM D256
Izod Impact, notched, 23°C	845	J/m	ASTM D256
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	100	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	85	°C	ASTM D648
Relative Temp Index, Elec ⁽²⁾	75	°C	UL 746B
Relative Temp Index, Mech w/impact ⁽²⁾	75	°C	UL 746B
Relative Temp Index, Mech w/o impact ⁽²⁾	75	°C	UL 746B
PHYSICAL ⁽¹⁾			
Specific Gravity	1.2	-	ASTM D792
Melt Flow Rate, 250°C/5.0 kgf	19	g/10 min	ASTM D1238
Melt Flow Rate, 265°C/5.0 kgf	27	g/10 min	ASTM D1238
Mold Shrinkage, flow, 3.2 mm ⁽³⁾	0.5 – 0.8	%	SABIC method
ELECTRICAL ⁽¹⁾			
Dielectric Constant, 5 GHz	2.84	-	SABIC method

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Dissipation Factor, 5 GHz	0.0059	-	SABIC method
FLAME CHARACTERISTICS ⁽²⁾			
UL Yellow Card Link	<u>E207780-104601262</u>	-	-
UL Recognized, 94V-0 Flame Class Rating	1.5	mm	UL 94
UL Recognized, 94V-1 Flame Class Rating	1.1	mm	UL 94
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	80 – 90	°C	
Drying Time	3 – 4	Hrs	
Melt Temperature	245 – 275	°C	
Nozzle Temperature	240 – 275	°C	
Front - Zone 3 Temperature	245 – 275	°C	
Middle - Zone 2 Temperature	220 – 265	°C	
Rear - Zone 1 Temperature	230 – 250	°C	
Mold Temperature	60 – 80	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	40 – 100	rpm	

- (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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