

# LNP™ ELCRIN™ 610001UXiQ

## DESCRIPTION

LNP ELCRIN 610001UXiQ compound is based on Polycarbonate / Polybutylene Terephthalate (PC/PBT) blend, utilizing ELCRIN iQ upcycling technology containing minimum 12% Post-Consumer Recycling (PCR) weight content. Added features of this grade include: Non-Chlorinated, Non-Brominated Flame Retardant, Good Flow, High Impact, Improved Chemical Resistance, UV Resistant.

### GENERAL INFORMATION

Features	Flame Retardant, Chemical Resistance, High Flow, High Impact Resistance, Non-Brominated, Non-Halogenated, UV Resistant, Post-Consumer Recycled (PCR) content
Fillers	Unreinforced
Polymer Types	Polycarbonate + PBT (PC+PBT)
Processing Techniques	Injection Molding

### INDUSTRY

Automotive  
Consumer  
Electrical and Electronics

### SUB INDUSTRY

Automotive Interiors  
Sport/Leisure, Personal Accessory  
Electrical Devices and Displays

## TYPICAL PROPERTY VALUES

Revision 20210716

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL <sup>(1)</sup></b>			
Tensile Stress, yld, Type I, 50 mm/min	63	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	42	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	4	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	65	%	ASTM D638
Tensile Modulus, 50 mm/min	2480	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	89	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2240	MPa	ASTM D790
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, notched, 23°C	550	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	65	J	ASTM D3763
<b>THERMAL <sup>(1)</sup></b>			
HDT, 1.82 MPa, 3.2mm, unannealed	77	°C	ASTM D648
Vicat Softening Temp, Rate B/50	100	°C	ASTM D1525
Relative Temp Index, Elec <sup>(2)</sup>	75	°C	UL 746B
Relative Temp Index, Mech w/impact <sup>(2)</sup>	75	°C	UL 746B
Relative Temp Index, Mech w/o impact <sup>(2)</sup>	75	°C	UL 746B
<b>PHYSICAL <sup>(1)</sup></b>			
Specific Gravity	1.2	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm <sup>(3)</sup>	0.5 – 0.7	%	SABIC method
Melt Flow Rate, 266°C/5.0 kgf	26	g/10 min	ASTM D1238

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>FLAME CHARACTERISTICS <sup>(2)</sup></b>			
UL Yellow Card Link	<u>E207780-100745645</u>	-	-
UL Recognized, 94V-1 Flame Class Rating	≥1.1	mm	UL 94
UL Recognized, 94V-0 Flame Class Rating	≥1.5	mm	UL 94
UL Recognized, 94-5VB Flame Class Rating	≥2.5	mm	UL 94
<b>INJECTION MOLDING <sup>(4)</sup></b>			
Drying Temperature	80 – 90	°C	
Drying Time	3 – 4	Hrs	
Drying Time (Cumulative)	8	Hrs	
Maximum Moisture Content	0.04	%	
Melt Temperature	245 – 275	°C	
Nozzle Temperature	245 – 275	°C	
Front - Zone 3 Temperature	245 – 275	°C	
Middle - Zone 2 Temperature	220 – 265	°C	
Rear - Zone 1 Temperature	220 – 255	°C	
Mold Temperature	60 – 80	°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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