LNP™ ELCRES™ SLX1271SR

DESCRIPTION

LNP ELCRES SLX1271SR is based on Polycarbonate (PC) copolymer resins. It is an injection moldable and weatherable product that offers enhanced UV stabilization and enhanced anti-scratch performance. This medium flow (13g/10min MFR) resin provides good processability and is available in a wide range of high-gloss opaque colors as well as transparent or tints. SLX1271SR is targeted for a broad range of mobility exteriors and electronics devices or the adjacent applications.

GENERAL INFORMATION	
Features	Good Processability, High Flow, Scratch Resistance, Transparent/Translucent, Weatherable/UV stable, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Polycarbonate (PC)
Processing Techniques	Sheet extrusion, Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive EV Batteries, Automotive Interiors, Automotive Exteriors
Electrical and Electronics	Electronic Components

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yld, Type I, 50 mm/min	69.6	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	56.9	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	6.7	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	57.5	%	ASTM D638
Tensile Modulus, 50 mm/min	2470	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	103	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2400	MPa	ASTM D790
IMPACT [1]			
Izod Impact			
notched, 23°C	49.3	J/m	ASTM D256
unnotched, 23°C	NB	J/m	ASTM D4812
notched, 0°C	47.9	J/m	ASTM D256
unnotched, 0°C	NB	J/m	ASTM D4812
notched, -10°C	47.7	J/m	ASTM D256
unnotched, -10°C	NB	J/m	ASTM D4812
notched, -20°C	47.1	J/m	ASTM D256
unnotched, -20°C	NB	J/m	ASTM D4812
notched, -30°C	46.1	J/m	ASTM D256
unnotched, -30°C	NB	J/m	ASTM D4812
Instrumented Dart Impact Total Energy, 23°C	76.8	J	ASTM D3763
Instrumented Dart Impact Ductility, 23°C	100	%	ASTM D3763

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	130	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	117	°C	ASTM D648
CTE, -40°C to 40°C, flow	6.50E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	6.50E-05	1/°C	ASTM E831
PHYSICAL [1]			
Specific Gravity	1.20	-	ASTM D792
Melt Volume Rate, MVR at 300°C/1.2 kg	11.43	cm³/10 min	ISO 1133
Mold Shrinkage, flow [2]	0.7	%	SABIC method
Mold Shrinkage, xflow [2]	0.71	%	SABIC method
OPTICAL [1]			
Light Transmission, 1.0 mm	91	%	ASTM D1003
Haze, 1.0 mm	0.6	%	ASTM D1003
OPTICAL PROPERTIES [1]			
Gloss			
20 °	105	-	ASTM D2457
60 °	103	-	ASTM D2457
85 °	96	-	ASTM D2457
INJECTION MOLDING [3]			
Drying Temperature	110 – 120	°C	
Drying Time	4 – 6	Hrs	
Melt Temperature	270 – 290	°C	
Front - Zone 3 Temperature	270 – 290	°C	
Middle - Zone 2 Temperature	260 – 280	°C	
Rear - Zone 1 Temperature	250 – 270	°C	
Mold Temperature	80 – 100	°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.

DISCLAIMER