LNP™ ELCRES™ EXL9334P

PC — Saudi Basic Industries Corporation (SABIC)

Product Texts

LNP ELCRES EXL9334P is based on Polycarbonate (PC) copolymer resin with excellent low temperature ductility, robust flame retardancy, good processability and electrical tracking resistance (CTI UL PLC0). It is UV stabilized with F1 rating and is a good candidate for applications like photovoltaic connectors.

UL Yellow Card Link: E207780-104582145

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Melt Flow Index, MFI	**8**	g/10min	ASTM D 1238
Temperature	**300**	°C	-
Load	**1.2**	kg	-
Mold Shrinkage, MD	**0.008**	mm/mm	ASTM D 955
Mold Shrinkage, TD	**0.008**	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**2100**	MPa	ISO 527
Yield stress	**53**	MPa	ISO 527
Stress at break	**54**	MPa	ISO 527
Strain at break	**90**	%	ISO 527
Flexural modulus, 23°C	**2080**	MPa	ISO 178
Flexural strength	**81**	MPa	ISO 178
Charpy impact strength, +23°C, 3mm	**N**	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C, 3mm	**N**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C, 3mm	**66**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C, 3mm	**63**	kJ/m²	ISO 179/1eA
Izod impact strength, +23°C	**N**	kJ/m²	ISO 180/1U
Izod notched impact strength, +23°C	**61**	kJ/m²	ISO 180/1A
Izod notched impact strength	**59**	kJ/m²	ISO 180/1A
Temperature	**-30**	°C	-
ASTM Data			
Tensile Modulus	**2050**	MPa	ASTM D 638
Tensile Strength at Break	**57**	MPa	ASTM D 638
Elongation at Yield	**55**	%	ASTM D 638
Elongation at Break	**90**	%	ASTM D 638
Flexural Modulus	**2110**	MPa	ASTM D 790
Flexural Strength	**87**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**750**	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	**420**	J/m	ASTM D 256
Temperature	**-40**	°C	-
Izod Impact unnotched, 1/8 in	**N**	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**123**	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	**138**	°C	ISO 75-1/-2
Vicat softening temperature, B	**143**	°C	ISO 306
Coeff. of linear therm. expansion, parallel	**66**	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	**83**	E-6/K	ISO 11359-1/-2
Burning behav. at thickness h	**V-0**	class	IEC 60695-11-10
Thickness tested	**1.2**	mm	-
Yellow Card available	**yes**	-	-
Burning behav. 5V at thickness h	**5VB**	class	IEC 60695-11-20
Thickness tested	**2.5**	mm	-
Yellow Card available	**yes**	-	-
ASTM Data			
UL 94 Flame rating	**V-0**	-	UL 94
Thickness tested	**1.2**	mm	-
Coefficient of Thermal Expansion, MD	**65**	E-6/K	ASTM D 696

Coefficient of Thermal Expansion, TD	**71**	E-6/K	ASTM D 696
DTUL @ 66 psi	**136**	°C	ASTM D 648
DTUL @ 264 psi	**122**	°C	ASTM D 648

Electrical properties	**Value**	**Unit**	**Test Standard**
ISO Data			
Comparative tracking index	**600**	-	IEC 60112
ASTM Data			
Surface Resistivity	**8.6E15**	Ohm	ASTM D 257
Volume Resistivity	**1.8E15**	Ohm*cm	ASTM D 257

Processing Recommendation Injection Molding	**Value**	**Unit**	**Test Standard**
Pre-drying - Temperature	**120**	°C	-
Pre-drying - Time	**3 - 4**	h	-
Processing humidity	**≤0.02**	%	-
Melt temperature	**260 - 290**	°C	-
Mold temperature	**70 - 120**	°C	-
Zone 1	**250 - 280**	°C	-
Zone 2	**255 - 285**	°C	-
Zone 3	**260 - 290**	°C	-
Nozzle temperature	**250 - 285**	°C	-
Screw speed	**40 - 70**	rpm	-
Back pressure	**0.3 - 0.7**	MPa	-

Characteristics

Processing
Injection Molding

Applications
Building Construction, Electrical and Electronical

Special Characteristics
Flame retardant, High impact or impact modified, U.V. stabilized or stable to weather

Regional Availability
North America, Europe, Asia Pacific, South and Central America

Features
Ductile, Copolymer