LNP™ ELCRES™ FXE9111T

PC — Saudi Basic Industries Corporation (SABIC)

Product Texts

ELCRES FXE9111T PC Siloxane copolymer resin is an injection molding grade. Non-chlorinated, non-brominated flame retardant. This resin offers good low temperature (-10 C) ductility in combination with high flow characteristics and excellent processability with opportunities for shorter IM cycle times compared to standard PC. Available for VisualFx capability in opaque “Illuminate” colors. ELCRES FXE9111T resin may be an excellent candidate for a broad range of applications, including but not limited to Automobile, Appliance, Electronics, etc.

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Melt Flow Index, MFI	**19.5**	g/10min	ASTM D 1238
Temperature	**300**	°C	-
Load	**1.2**	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**2230**	MPa	ISO 527
Yield stress	**58**	MPa	ISO 527
Yield strain	**5**	%	ISO 527
Stress at break	**52**	MPa	ISO 527
Strain at break	**95**	%	ISO 527
Flexural modulus, 23°C	**2190**	MPa	ISO 178
Flexural strength	**86.6**	MPa	ISO 178
Charpy impact strength, +23°C	**130**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	**59**	kJ/m²	ISO 179/1eA
Izod impact strength, +23°C	**180**	kJ/m²	ISO 180/1U
Izod notched impact strength, +23°C	**57**	kJ/m²	ISO 180/1A
ASTM Data			
Tensile Modulus	**2190**	MPa	ASTM D 638
Tensile Strength at Yield	**57**	MPa	ASTM D 638
Tensile Strength at Break	**54**	MPa	ASTM D 638
Elongation at Yield	**5**	%	ASTM D 638
Elongation at Break	**92**	%	ASTM D 638
Flexural Modulus	**2180**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**777**	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	**582**	J/m	ASTM D 256
Temperature	**-10**	°C	-
Izod Impact unnotched, 1/8 in	**2150**	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**107**	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	**119**	°C	ISO 75-1/-2
Vicat softening temperature, B	**125**	°C	ISO 306
Coeff. of linear therm. expansion, parallel	**81**	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	**86**	E-6/K	ISO 11359-1/-2
Burning behav. at thickness h	**V-0**	class	IEC 60695-11-10
Thickness tested	**2.0**	mm	-
Yellow Card available	**yes**	-	-
ASTM Data			
Coefficient of Thermal Expansion, MD	**75**	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	**83**	E-6/K	ASTM D 696
DTUL @ 66 psi	**119**	°C	ASTM D 648
DTUL @ 264 psi	**107**	°C	ASTM D 648
Vicat Temperature	**126**	°C	ASTM D 1525

Other properties	Value	Unit	Test Standard
Humidity absorption	**0.04**	%	Sim. to ISO 62
Density	**1200**	kg/m³	ISO 1183
Density	**1200**	kg/m³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**90**	°C	-
Pre-drying - Time	**3 - 4**	h	-
Processing humidity	**≤0.02**	%	-
Melt temperature	**270 - 315**	°C	-
Mold temperature	**50 - 90**	°C	-
Zone 1	**250 - 280**	°C	-
Zone 2	**260 - 305**	°C	-
Zone 3	**270 - 315**	°C	-
Nozzle temperature	**270 - 310**	°C	-

Characteristics

Processing
Injection Molding

Features
Ductile, Copolymer

Additives
Release agent

Applications
Automotive, Electrical and Electronical, Packaging

Special Characteristics
Flame retardant, Halogen-free, Opaque

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