LNP™ ELCRIN™ EXL9484RCC

PC — Saudi Basic Industries Corporation (SABIC)

Product Texts

ELCRIN EXL9484RCC polycarbonate (PC) siloxane copolymer resin is a UV stabilized, medium flow, non-chlorinated, non-brominated flame retardant opaque grade with 75% post consumer recycle (PCR) content. This resin offers excellent low temperature ductility (-40 °C), UL94 V0 at 1.0mm, good chemical resistance and in combination with excellent processability and release with opportunities for shorter cycle times compared to standard PC. ELCRIN EXL9484RCC resin is a product available in wide range of opaque colors and excellent candidate for a wide variety of applications.

UL Yellow Card E207780-104571656

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**11**	cm³/10min	ISO 1133
Temperature	**300**	°C	-
Load	**1.2**	kg	-
ASTM Data			
Melt Flow Index, MFI	**12**	g/10min	ASTM D 1238
Temperature	**300**	°C	-
Load	**1.2**	kg	-
Mold Shrinkage, MD	**0.006**	mm/mm	ASTM D 955
Mold Shrinkage, TD	**0.006**	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**2170**	MPa	ISO 527
Yield stress	**55**	MPa	ISO 527
Yield strain	**5.3**	%	ISO 527
Stress at break	**62**	MPa	ISO 527
Strain at break	**110**	%	ISO 527
Flexural modulus, 23°C	**2150**	MPa	ISO 178
Flexural strength	**84**	MPa	ISO 178
Charpy notched impact strength, +23°C	**71**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	**55**	kJ/m²	ISO 179/1eA
Izod notched impact strength, +23°C	**66**	kJ/m²	ISO 180/1A
Izod notched impact strength	**52**	kJ/m²	ISO 180/1A
Temperature	**-30**	°C	-
ASTM Data			
Tensile Modulus	**2070**	MPa	ASTM D 638
Tensile Strength at Yield	**54**	MPa	ASTM D 638
Tensile Strength at Break	**63**	MPa	ASTM D 638
Elongation at Yield	**5**	%	ASTM D 638
Elongation at Break	**110**	%	ASTM D 638
Flexural Modulus	**2190**	MPa	ASTM D 790
Flexural Strength	**89**	MPa	ASTM D 790
Rockwell Hardness	**L 85**	-	ASTM D 785
Izod Impact notched, 1/8 in	**830**	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	**580**	J/m	ASTM D 256
Temperature	**-40**	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**111**	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	**124**	°C	ISO 75-1/-2
Vicat softening temperature, B	**129**	°C	ISO 306
Coeff. of linear therm. expansion, parallel	**80**	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	**85**	E-6/K	ISO 11359-1/-2
Burning behav. at thickness h	**V-0**	class	IEC 60695-11-10
Thickness tested	**1.0**	mm	-
Yellow Card available	**yes**	-	-

Burning behav. 5V at thickness h	**5VB**	class	IEC 60695-11-20
Thickness tested	**3.0**	mm	-
Yellow Card available	**yes**	-	-
Oxygen index	**36**	%	ISO 4589-1/-2
Glow Wire Flammability Index (GWFI)	**960**	°C	IEC 60695-2-12
GWFI - thickness tested (1)	**1**	mm	-
Glow Wire Ignition Temperature (GWIT)	**850**	°C	IEC 60695-2-13
GWIT - thickness tested (1)	**1**	mm	-
ASTM Data			
Coefficient of Thermal Expansion, MD	**66**	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	**69**	E-6/K	ASTM D 696
DTUL @ 66 psi	**124**	°C	ASTM D 648
DTUL @ 264 psi	**111**	°C	ASTM D 648

Electrical properties	**Value**	**Unit**	**Test Standard**
ASTM Data			
Surface Resistivity	**1E16**	Ohm	ASTM D 257
Volume Resistivity	**1E16**	Ohm*cm	ASTM D 257

Other properties	**Value**	**Unit**	**Test Standard**
Density	**1190**	kg/m³	ISO 1183
Density	**1190**	kg/m³	ASTM D 792

Processing Recommendation Injection Molding	**Value**	**Unit**	**Test Standard**
Pre-drying - Temperature	**110**	°C	-
Pre-drying - Time	**3 - 4**	h	-
Processing humidity	**≤0.02**	%	-
Melt temperature	**295 - 315**	°C	-
Mold temperature	**70 - 95**	°C	-
Zone 1	**275 - 295**	°C	-
Zone 2	**280 - 305**	°C	-
Zone 3	**295 - 315**	°C	-
Nozzle temperature	**290 - 310**	°C	-
Screw speed	**40 - 70**	rpm	-
Back pressure	**0.3 - 0.7**	MPa	-

Characteristics

Processing
Injection Molding

Additives
Release agent

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

Features
Ductile, Copolymer

Chemical Resistance
General Chemical Resistance

Certifications
Recycled Resin Content

Applications
IT / Business Machine, Electrical and Electronical

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