LNP™ ELCRIN™ EXL9253RCC

PC — Saudi Basic Industries Corporation (SABIC)

Product Texts

ELCRIN EXL9253RCC polycarbonate (PC) siloxane copolymer resin is a UV stabilized, medium flow, non-chlorinated, non-brominated flame retardant opaque grade with 50% post consumer recycle (PCR) content. This resin offers excellent low temperature ductility (-30 °C), thin wall flame retardant capability with UL94 V0 at 1.0mm, and in combination with excellent processability and release with opportunities for shorter cycle times compared to standard PC. ELCRIN EXL9253RCC resin is a product available in wide range of opaque colors and excellent candidate for a wide variety of applications.

UL Yellow Card E207780-104530253

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**14**	cm³/10min	ISO 1133
Temperature	**300**	°C	-
Load	**1.2**	kg	-
ASTM Data			
Melt Flow Index, MFI	**15**	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	**2220**	MPa	ISO 527
Yield stress	**57**	MPa	ISO 527
Yield strain	**5.3**	%	ISO 527
Stress at break	**60**	MPa	ISO 527
Strain at break	**110**	%	ISO 527
Flexural modulus, 23°C	**2190**	MPa	ISO 178
Flexural strength	**87**	MPa	ISO 178
Charpy notched impact strength, +23°C	**76**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	**48**	kJ/m²	ISO 179/1eA
Izod notched impact strength, +23°C	**70**	kJ/m²	ISO 180/1A
Izod notched impact strength	**46**	kJ/m²	ISO 180/1A
Temperature	**-30**	°C	-
ASTM Data			
Tensile Modulus	**2190**	MPa	ASTM D 638
Tensile Strength at Yield	**57**	MPa	ASTM D 638
Tensile Strength at Break	**62**	MPa	ASTM D 638
Elongation at Yield	**5.3**	%	ASTM D 638
Elongation at Break	**110**	%	ASTM D 638
Flexural Modulus	**2300**	MPa	ASTM D 790
Flexural Strength	**92**	MPa	ASTM D 790
Rockwell Hardness	**L 88**	-	ASTM D 785
Izod Impact notched, 1/8 in	**900**	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	**210**	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	**128**	°C	ISO 306
Coeff. of linear therm. expansion, parallel	**77**	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	**88**	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	**5VA**	class	IEC 60695-11-20
Thickness tested	**3.0**	mm	-
Yellow Card available	**yes**	-	-
Oxygen index	**42**	%	ISO 4589-1/-2
Glow Wire Ignition Temperature (GWIT)	**850**	°C	IEC 60695-2-13
GWIT - thickness tested (1)	**1**	mm	-
ASTM Data			
Coefficient of Thermal Expansion, MD	**72**	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	**76**	E-6/K	ASTM D 696
DTUL @ 66 psi	**124**	°C	ASTM D 648
DTUL @ 264 psi	**112**	°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	**1200**	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	**270 - 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

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

Features
Ductile, Copolymer

Certifications
Recycled Resin Content

Applications
Automotive, Building Construction, IT / Business Machine, Electrical and Electronical

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