

Product Texts

ELCRIN EXL9454RCC 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 (-40 °C), UL94 V0 at 1.5mm, good chemical resistance and in combination with excellent processability and release with opportunities for shorter cycle times compared to standard PC. ELCRIN EXL9454RCC resin is a product available in limited colors and excellent candidate for a wide variety of applications.

UL Yellow Card [E207780-104563868](https://www.ul.com/yellow-card/E207780-104563868)

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	9	cm ³ /10min	ISO 1133
Temperature	300	°C	-
Load	1.2	kg	-
ASTM Data			
Melt Flow Index, MFI	10	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	2160	MPa	ISO 527
Yield stress	55	MPa	ISO 527
Yield strain	5.4	%	ISO 527
Stress at break	56	MPa	ISO 527
Strain at break	100	%	ISO 527
Flexural modulus, 23°C	2100	MPa	ISO 178
Flexural strength	84	MPa	ISO 178
Charpy notched impact strength, +23°C	70	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	53	kJ/m ²	ISO 179/1eA
Izod notched impact strength, +23°C	66	kJ/m ²	ISO 180/1A
Izod notched impact strength	56	kJ/m ²	ISO 180/1A
Temperature	-30	°C	-
ASTM Data			
Tensile Modulus	2110	MPa	ASTM D 638
Tensile Strength at Yield	54	MPa	ASTM D 638
Tensile Strength at Break	61	MPa	ASTM D 638
Elongation at Yield	5.4	%	ASTM D 638
Elongation at Break	110	%	ASTM D 638
Flexural Modulus	2160	MPa	ASTM D 790
Flexural Strength	86	MPa	ASTM D 790
Rockwell Hardness	L 78	-	ASTM D 785
Izod Impact notched, 1/8 in	840	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	620	J/m	ASTM D 256
Temperature	-40	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	119	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	133	°C	ISO 75-1/-2
Vicat softening temperature, B	139	°C	ISO 306
Coeff. of linear therm. expansion, parallel	80	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	90	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	V-0	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
Yellow Card available	yes	-	-

Oxygen index	32	%	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	71	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	76	E-6/K	ASTM D 696
DTUL @ 66 psi	134	°C	ASTM D 648
DTUL @ 264 psi	120	°C	ASTM D 648

Electrical properties	Value	Unit	Test Standard
ASTM Data			
Surface Resistivity	>1E15	Ohm	ASTM D 257
Volume Resistivity	1E16	Ohm*cm	ASTM D 257

Other properties	Value	Unit	Test Standard
Density	1180	kg/m ³	ISO 1183
Density	1180	kg/m ³	ASTM D 792

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	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

Features

Ductile, Copolymer

Chemical Resistance

General Chemical Resistance

Certifications

Recycled Resin Content

Applications

Automotive, IT / Business Machine, Electrical and Electronical

Regional Availability

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