

## Product Texts

ELCRIN EXL9134B polycarbonate (PC) siloxane copolymer resin is a UV stabilized high flow opaque injection molding (IM) grade with major component synthesized from Bio source. This resin offers UL94 V0 @1.5mm flame retardancy based on non-bromine, non-chlorine FR systems, extreme low temperature ductility (-35°C) characteristics and excellent processability with opportunities for shorter IM cycle times compared to standard PC. ELCRIN EXL9134B resin is a product available in a wide range of opaque colors and may be an excellent candidate for a wide range of applications.

UL Yellow Card [E207780-101110005](https://www.ul.com/yellow-card/E207780-101110005)

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
Melt volume-flow rate, MVR	15	cm <sup>3</sup> /10min	ISO 1133
Temperature	300	°C	-
Load	1.2	kg	-
<b>ASTM Data</b>			
Melt Flow Index, MFI	16	g/10min	ASTM D 1238
Temperature	300	°C	-
Load	1.2	kg	-
Mold Shrinkage, MD	0.004	mm/mm	ASTM D 955
<b>Mechanical properties</b>			
<b>ISO Data</b>			
Tensile Modulus	2000	MPa	ISO 527
Yield stress	56	MPa	ISO 527
Yield strain	6	%	ISO 527
Stress at break	57	MPa	ISO 527
Strain at break	108	%	ISO 527
Flexural modulus, 23°C	2100	MPa	ISO 178
Flexural strength	87	MPa	ISO 178
Charpy impact strength, +23°C	N	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C	N	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, +23°C	70	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30°C	35	kJ/m <sup>2</sup>	ISO 179/1eA
Izod impact strength, +23°C	N	kJ/m <sup>2</sup>	ISO 180/1U
Izod notched impact strength, +23°C	65	kJ/m <sup>2</sup>	ISO 180/1A
Izod notched impact strength	30	kJ/m <sup>2</sup>	ISO 180/1A
Temperature	-30	°C	-
<b>ASTM Data</b>			
Tensile Modulus	2100	MPa	ASTM D 638
Tensile Strength at Yield	58	MPa	ASTM D 638
Tensile Strength at Break	59	MPa	ASTM D 638
Elongation at Yield	6	%	ASTM D 638
Elongation at Break	115	%	ASTM D 638
Flexural Modulus	2400	MPa	ASTM D 790
Flexural Strength	92	MPa	ASTM D 790
Izod Impact notched, 1/8 in	785	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	380	J/m	ASTM D 256
Temperature	-40	°C	-
<b>Thermal properties</b>			
<b>ISO Data</b>			
Temp. of deflection under load, 1.80 MPa	118	°C	ISO 75-1/-2
Vicat softening temperature, B	139	°C	ISO 306
Coeff. of linear therm. expansion, parallel	61	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	62	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	-	-

Burning behav. 5V at thickness h	<b>5VA</b>	class	IEC 60695-11-20
Thickness tested	<b>3.0</b>	mm	-
Yellow Card available	<b>yes</b>	-	-
Glow Wire Flammability Index (GWFI)	<b>960</b>	°C	IEC 60695-2-12
GWFI - thickness tested (1)	<b>1.5</b>	mm	-
Glow Wire Flammability Index (GWFI)	<b>960</b>	°C	IEC 60695-2-12
GWFI - thickness tested (2)	<b>3</b>	mm	-
Glow Wire Ignition Temperature (GWIT)	<b>825</b>	°C	IEC 60695-2-13
GWIT - thickness tested (1)	<b>1.5</b>	mm	-
Glow Wire Ignition Temperature (GWIT)	<b>825</b>	°C	IEC 60695-2-13
GWIT - thickness tested (2)	<b>3</b>	mm	-
<b>ASTM Data</b>			
Coefficient of Thermal Expansion, MD	<b>61</b>	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	<b>62</b>	E-6/K	ASTM D 696
DTUL @ 264 psi	<b>123</b>	°C	ASTM D 648
Vicat Temperature	<b>140</b>	°C	ASTM D 1525

Electrical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Comparative tracking index	<b>212</b>	-	IEC 60112

Other properties	Value	Unit	Test Standard
Water absorption	<b>0.4</b>	%	Sim. to ISO 62
Humidity absorption	<b>0.15</b>	%	Sim. to ISO 62
Density	<b>1190</b>	kg/m <sup>3</sup>	ISO 1183
Density	<b>1190</b>	kg/m <sup>3</sup>	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	<b>120</b>	°C	-
Pre-drying - Time	<b>3 - 4</b>	h	-
Processing humidity	<b>≤0.02</b>	%	-
Melt temperature	<b>295 - 315</b>	°C	-
Mold temperature	<b>70 - 95</b>	°C	-
Zone 1	<b>270 - 295</b>	°C	-
Zone 2	<b>280 - 305</b>	°C	-
Zone 3	<b>295 - 315</b>	°C	-
Nozzle temperature	<b>290 - 310</b>	°C	-
Screw speed	<b>40 - 70</b>	rpm	-
Back pressure	<b>0.3 - 0.7</b>	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

Copolymer

### Applications

IT / Business Machine, Electrical and Electronical

### Regional Availability

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