

**Product Texts**

LEXAN EXL1810T polycarbonate (PC) siloxane copolymer resin is a transparent injection molding grade. This resin offers cold temperature (0 °C) ductility in combination with very high flow characteristics and excellent processability with opportunities for shorter IM cycle times compared to standard PC resin. LEXAN EXL1810T resin is a general purpose product available in transparent and opaque colors and is an excellent candidate for a broad range of applications.

UL Yellow Card Link [E45329-102010012](https://www.ul.com/yellowcard/E45329-102010012)

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
Melt volume-flow rate, MVR	33	cm <sup>3</sup> /10min	ISO 1133
Temperature	300	°C	-
Load	1.2	kg	-
<b>ASTM Data</b>			
Melt Flow Index, MFI	35	g/10min	ASTM D 1238
Temperature	300	°C	-
Load	1.2	kg	-

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Tensile Modulus	2400	MPa	ISO 527
Yield stress	59	MPa	ISO 527
Yield strain	5.4	%	ISO 527
Stress at break	56	MPa	ISO 527
Strain at break	50	%	ISO 527
Flexural modulus	2250	MPa	ISO 178
Charpy impact strength, +23°C, 3mm	N	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C, 3mm	N	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, +23°C, 3mm	65	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30°C, 3mm	40	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, 3mm	60	kJ/m <sup>2</sup>	ISO 180/1A
Izod notched impact strength, -30°C, 3mm	30	kJ/m <sup>2</sup>	ISO 180/1A
Rockwell hardness	L90	-	ISO 2039-2
<b>ASTM Data</b>			
Tensile Modulus	2360	MPa	ASTM D 638
Tensile Strength at Yield	59	MPa	ASTM D 638
Tensile Strength at Break	58	MPa	ASTM D 638
Elongation at Yield	5.8	%	ASTM D 638
Elongation at Break	119	%	ASTM D 638
Flexural Modulus	2350	MPa	ASTM D 790
Izod Impact notched, 1/8 in	702	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	220	J/m	ASTM D 256
Temperature	-30	°C	-

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Temp. of deflection under load, 1.80 MPa	117	°C	ISO 75-1/-2
Vicat softening temperature, B	137	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	140	°C	ISO 306
Burning behav. at 1.5 mm nom. thickn.	V-2	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature (GWIT)	825	°C	IEC 60695-2-13
GWIT - thickness tested (3)	3	mm	-
<b>ASTM Data</b>			
DTUL @ 264 psi	120	°C	ASTM D 648
Vicat Temperature	138	°C	ASTM D 1525

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

<b>Other properties</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Water absorption	<b>0.12</b>	%	Sim. to ISO 62
Humidity absorption	<b>0.09</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

<b>Processing Recommendation Injection Molding</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
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	-
Screw speed	<b>40 - 70</b>	rpm	-
Back pressure	<b>0.3 - 0.7</b>	MPa	-

**Characteristics**

**Processing**

Injection Molding

**Regional Availability**

Europe

**Special Characteristics**

Transparent