

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 [E207780-516983](https://www.ulprospector.com/2022/05/16/lexan-exl1810t/)

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

Mechanical properties	Value	Unit	Test Standard
ISO Data			
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 ²	ISO 179/1eU
Charpy impact strength, -30°C, 3mm	N	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C, 3mm	65	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C, 3mm	40	kJ/m ²	ISO 179/1eA
Izod impact strength, +23°C	N	kJ/m ²	ISO 180/1U
Izod notched impact strength, +23°C, 3mm	60	kJ/m ²	ISO 180/1A
Izod notched impact strength, -30°C, 3mm	30	kJ/m ²	ISO 180/1A
Rockwell hardness	L90	-	ISO 2039-2
ASTM Data			
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
ISO Data			
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	-
ASTM Data			
DTUL @ 264 psi	120	°C	ASTM D 648
Vicat Temperature	138	°C	ASTM D 1525

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

Other properties	Value	Unit	Test Standard
Water absorption	0.12	%	Sim. to ISO 62
Humidity absorption	0.09	%	Sim. to ISO 62
Density	1190	kg/m ³	ISO 1183
Density	1190	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	270 - 295	°C	-
Zone 2	280 - 305	°C	-
Zone 3	295 - 315	°C	-
Screw speed	40 - 70	rpm	-
Back pressure	0.3 - 0.7	MPa	-

Characteristics

Processing

Injection Molding

Regional Availability

Asia Pacific

Special Characteristics

Transparent