

**Product Texts**

LEXAN EXL1434 polycarbonate (PC) siloxane copolymer resin is a medium flow opaque injection molding (IM) grade and is UV stabilized. This resin offers extreme low temperature (-40 C), exhibits excellent processability and release with opportunities for shorter IM cycle times compared to standard PC. LEXAN EXL1434 resin is a product available in wide range of opaque colors and may be an excellent candidate for a wide variety of applications.

UL Yellow Card Link [E207780-475370](https://www.ul.com/yellowcard/E207780-475370)

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
Melt volume-flow rate, MVR	9	cm <sup>3</sup> /10min	ISO 1133
Temperature	300	°C	-
Load	1.2	kg	-
<b>ASTM Data</b>			
Melt Flow Index, MFI	10	g/10min	ASTM D 1238
Temperature	300	°C	-
Load	1.2	kg	-

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Tensile Modulus	2150	MPa	ISO 527
Yield stress	57	MPa	ISO 527
Yield strain	6	%	ISO 527
Stress at break	60	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	70	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30°C, 3mm	65	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	70	kJ/m <sup>2</sup>	ISO 180/1A
Izod notched impact strength, -30°C, 3mm	60	kJ/m <sup>2</sup>	ISO 180/1A
<b>ASTM Data</b>			
Tensile Modulus	2020	MPa	ASTM D 638
Tensile Strength at Yield	55	MPa	ASTM D 638
Tensile Strength at Break	50	MPa	ASTM D 638
Elongation at Yield	6	%	ASTM D 638
Elongation at Break	98	%	ASTM D 638
Flexural Modulus	2230	MPa	ASTM D 790
Rockwell Hardness	R 121	-	ASTM D 785
Izod Impact notched, 1/8 in	865	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	774	J/m	ASTM D 256
Temperature	-30	°C	-

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Vicat softening temperature, B	145	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	146	°C	ISO 306
Burning behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	0.7	mm	-
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature (GWIT)	875	°C	IEC 60695-2-13
GWIT - thickness tested (1)	1	mm	-
Glow Wire Ignition Temperature (GWIT)	875	°C	IEC 60695-2-13
GWIT - thickness tested (3)	3	mm	-
<b>ASTM Data</b>			
DTUL @ 66 psi	139	°C	ASTM D 648
DTUL @ 264 psi	124	°C	ASTM D 648

Vicat Temperature	<b>145</b>	°C	ASTM D 1525
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<b>Electrical properties</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ASTM Data</b>			
Dielectric Strength, Short Time	<b>16.2</b>	kV/mm	ASTM D 149
Dissipation Factor, 1 MHz	<b>0.0093</b>	-	ASTM D 150
Dielectric Constant, 1 MHz	<b>2.64</b>	-	ASTM D 150
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>0.35</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>1180</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**

Asia Pacific