

Product Texts

ELCREX EXL1212L polycarbonate (PC) siloxane copolymer resin is a medium to high flow opaque injection molding (IM) grade. This resin offers good low temperature -20°C ductility and weld line appearance in combination with excellent processability with opportunities for shorter IM cycle times compared to standard PC. ELCRES EXL1212L resin is a product available in wide range of opaque colors and specifically designed for chemical plating process.

UL Yellow Card [E207780-104561280](https://www.ul.com/yellowcard/E207780-104561280)

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	14	cm ³ /10min	ISO 1133
Temperature	300	°C	-
Load	1.2	kg	-
ASTM Data			
Melt Flow Index, MFI	15	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	2080	MPa	ISO 527
Yield stress	53	MPa	ISO 527
Yield strain	6	%	ISO 527
Stress at break	54	MPa	ISO 527
Strain at break	90	%	ISO 527
Flexural modulus, 23°C	2050	MPa	ISO 178
Flexural strength	82	MPa	ISO 178
Charpy notched impact strength, +23°C	50	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	38	kJ/m ²	ISO 179/1eA
Izod notched impact strength, +23°C	49	kJ/m ²	ISO 180/1A
Izod notched impact strength	38	kJ/m ²	ISO 180/1A
Temperature	-30	°C	-
ASTM Data			
Tensile Modulus	2040	MPa	ASTM D 638
Tensile Strength at Yield	53	MPa	ASTM D 638
Tensile Strength at Break	55	MPa	ASTM D 638
Elongation at Yield	6	%	ASTM D 638
Elongation at Break	90	%	ASTM D 638
Flexural Modulus	2090	MPa	ASTM D 790
Flexural Strength	84	MPa	ASTM D 790
Rockwell Hardness	L 82	-	ASTM D 785
Izod Impact notched, 1/8 in	580	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	320	J/m	ASTM D 256
Temperature	-40	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	121	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	135	°C	ISO 75-1/-2
Vicat softening temperature, B	140	°C	ISO 306
Coeff. of linear therm. expansion, parallel	74	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	80	E-6/K	ISO 11359-1/-2
Burning behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	0.4	mm	-
Yellow Card available	yes	-	-
Oxygen index	29	%	ISO 4589-1/-2

Glow Wire Ignition Temperature (GWIT)	850	°C	IEC 60695-2-13
GWIT - thickness tested (1)	1	mm	-

ASTM Data

Coefficient of Thermal Expansion, MD	65	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	66	E-6/K	ASTM D 696
DTUL @ 66 psi	135	°C	ASTM D 648
DTUL @ 264 psi	122	°C	ASTM D 648

Electrical properties	Value	Unit	Test Standard
ASTM Data			
Surface Resistivity	1E16	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

Special Characteristics

Platable, High impact or impact modified, Opaque

Features

Ductile, Weldable, Copolymer

Applications

IT / Business Machine, Electrical and Electronical

Regional Availability

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