

Product Texts

LEXAN EXL4419 polycarbonate (PC) siloxane copolymer resin is a 9% Glass Fiber (GF) reinforced opaque injection molding (IM) grade. This medium flow resin offers much higher ductility, improved release characteristics and excellent processability with opportunities for shorter IM cycle times when compared to GF reinforced standard PC resins. LEXAN EXL4419 resin is available in opaque colors only and is an excellent candidate for a broad range of applications that require a combination of stiffness and ductility.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	10	cm ³ /10min	ISO 1133
Temperature	300	°C	-
Load	1.2	kg	-
ASTM Data			
Melt Flow Index, MFI	11	g/10min	ASTM D 1238
Temperature	300	°C	-
Load	1.2	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	3300	MPa	ISO 527
Yield stress	55	MPa	ISO 527
Yield strain	4.5	%	ISO 527
Stress at break	43	MPa	ISO 527
Strain at break	12.5	%	ISO 527
Flexural modulus	3300	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	25	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C, 3mm	15	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	25	kJ/m ²	ISO 180/1A
Izod notched impact strength, -30°C, 3mm	10	kJ/m ²	ISO 180/1A
ASTM Data			
Tensile Modulus	3300	MPa	ASTM D 638
Tensile Strength at Yield	53	MPa	ASTM D 638
Tensile Strength at Break	44	MPa	ASTM D 638
Elongation at Yield	4.5	%	ASTM D 638
Elongation at Break	20	%	ASTM D 638
Flexural Modulus	3200	MPa	ASTM D 790
Izod Impact notched, 1/8 in	280	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	110	J/m	ASTM D 256
Temperature	-30	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	134	°C	ISO 75-1/-2
Vicat softening temperature, B	144	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	146	°C	ISO 306
ASTM Data			
DTUL @ 264 psi	135	°C	ASTM D 648
Vicat Temperature	145	°C	ASTM D 1525

Electrical properties	Value	Unit	Test Standard
ASTM Data			
Dielectric Strength, Short Time	31.5	kV/mm	ASTM D 149
Dissipation Factor, 1 MHz	0.0086	-	ASTM D 150
Dielectric Constant, 1 MHz	3.04	-	ASTM D 150
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	0.46	%	Sim. to ISO 62
Density	1250	kg/m ³	ISO 1183
Density	1250	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	310 - 330	°C	-
Mold temperature	80 - 115	°C	-
Zone 1	290 - 310	°C	-
Zone 2	300 - 320	°C	-
Zone 3	310 - 330	°C	-
Screw speed	40 - 70	rpm	-
Back pressure	0.3 - 0.7	MPa	-

Characteristics**Processing**

Injection Molding

Regional Availability

Europe