LEXAN™ Copolymer EXL1890T - Asia

PC — Saudi Basic Industries Corporation (SABIC)

Product Texts

LEXAN EXL1890T polycarbonate (PC) siloxane copolymer resin is a transparent injection molding grade for food contact applications. 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 EXL1890T resin offers enhanced release performance and is available in transparent colors and is an excellent candidate for a broad range of applications in food handling or food preparation markets.

UL Yellow Card Link E121562-455392

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**33**	cm³/10min	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/m²	ISO 179/1eU
Charpy impact strength, -30°C, 3mm	**N**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C, 3mm	**65**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C, 3mm	**40**	kJ/m²	ISO 179/1eA
Izod impact strength, +23°C	**N**	kJ/m²	ISO 180/1U
Izod notched impact strength, +23°C, 3mm	**60**	kJ/m²	ISO 180/1A
Izod notched impact strength, -30°C, 3mm	**30**	kJ/m²	ISO 180/1A
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	**5.7**	%	ASTM D 638
Elongation at Break	**119**	%	ASTM D 638
Flexural Modulus	**2350**	MPa	ASTM D 790
Rockwell Hardness	**L90**	-	ASTM D 785
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.	**HB**	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)	**850**	°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

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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/m³	ISO 1183
Density	**1190**	kg/m³	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

Special Characteristics
Transparent

Certifications
Food contact

Regional Availability
Asia Pacific