

SABIC Innovative Plastics Lexan® EXL1493T PC Copolymer

Category : Polymer , Thermoplastic , Polycarbonate (PC)

Material Notes:

Lexan® EXL1493T polycarbonate (PC) siloxane copolymer resin is an injection molding grade with FDA and EU food contact compliance, with mold release. This resin offers excellent low temperature (-30 °C) ductility in combination with medium flow characteristics and excellent processability with opportunities for shorter IM cycle times compared to standard PC. Lexan EXL1493T resin is available in transparent and opaque colors and is an excellent candidate for a broad range of food contact applications. This data was supplied by SABIC-IP for the Americas region.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Lexan-EXL1493T-PC-Copolymer.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.19 g/cc	1.19 g/cc	ASTM D 792
Density	1.19 g/cc	0.0430 lb/in ³	ISO 1183
Moisture Absorption at Equilibrium	0.090 %	0.090 %	23°C / 50% RH; ISO 62
Water Absorption at Saturation	0.24 % @Temperature 23.0 °C	0.24 % @Temperature 73.4 °F	ISO 62
Linear Mold Shrinkage, Flow	0.0040 - 0.0080 cm/cm @Thickness 3.20 mm	0.0040 - 0.0080 in/in @Thickness 0.126 in	SABIC Method
Melt Flow	9.0 g/10 min @Load 1.20 kg, Temperature 300 °C	9.0 g/10 min @Load 2.65 lb, Temperature 572 °F	[cm ³ /10 min] Melt Volume Rate; ISO 1133
	10 g/10 min @Load 1.20 kg, Temperature 300 °C	10 g/10 min @Load 2.65 lb, Temperature 572 °F	ASTM D 1238

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	61.0 MPa	8850 psi	50 mm/min; ISO 527
	64.0 MPa	9280 psi	Type I, 50 mm/min; ASTM D 638
Tensile Strength, Yield	57.0 MPa	8270 psi	50 mm/min; ISO 527
	58.0 MPa	8410 psi	Type I, 50 mm/min; ASTM D 638
Elongation at Break	124.9 %	124.9 %	50 mm/min; ISO 527
	131.4 %	131.4 %	Type I, 50 mm/min; ASTM D 638

Elongation at Yield Mechanical Properties	5.5 % Metric	5.5 % English	50 mm/min; ISO 527 Comments
	5.8 %	5.8 %	Type I, 50 mm/min; ASTM D 638
Tensile Modulus	2.21 GPa	321 ksi	50 mm/min; ASTM D 638
	2.35 GPa	341 ksi	1 mm/min; ISO 527
Flexural Yield Strength	90.0 MPa	13100 psi	2 mm/min; ISO 178
	94.0 MPa	13600 psi	1.3 mm/min, 50 mm span; ASTM D 790
Flexural Modulus	2.15 GPa	312 ksi	2 mm/min; ISO 178
	2.21 GPa	321 ksi	1.3 mm/min, 50 mm span; ASTM D 790
Izod Impact, Notched	7.95 J/cm @Temperature -30.0 °C	14.9 ft-lb/in @Temperature -22.0 °F	ASTM D 256
	8.90 J/cm @Temperature 23.0 °C	16.7 ft-lb/in @Temperature 73.4 °F	ASTM D 256
Izod Impact, Notched (ISO)	29.0 kJ/m ² @Temperature -30.0 °C	13.8 ft-lb/in ² @Temperature -22.0 °F	80*10*4; ISO 180/1A
	56.0 kJ/m ² @Temperature 23.0 °C	26.6 ft-lb/in ² @Temperature 73.4 °F	80*10*4; ISO 180/1A
Charpy Impact, Notched	2.40 J/cm ² @Temperature -30.0 °C	11.4 ft-lb/in ² @Temperature -22.0 °F	V-notch Edgew 80*10*4 sp=62mm; ISO 179/1eA
	7.40 J/cm ² @Temperature 23.0 °C	35.2 ft-lb/in ² @Temperature 73.4 °F	V-notch Edgew 80*10*4 sp=62mm; ISO 179/1eA
Impact Test	82.0 J @Temperature 23.0 °C	60.5 ft-lb @Temperature 73.4 °F	Instrumented Impact Total Energy; ASTM D 3763

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	71.5 µm/m-°C @Temperature -40.0 - 95.0 °C	39.7 µin/in-°F @Temperature -40.0 - 203 °F	ASTM E 831
	71.5 µm/m-°C @Temperature 23.0 - 80.0 °C	39.7 µin/in-°F @Temperature 73.4 - 176 °F	ISO 11359-2
	79.3 µm/m-°C	44.1 µin/in-°F	

CTE, linear, Transverse to Flow Thermal Properties	Metric @ Temperature -40.0 - 95.0 °C	English @ Temperature -40.0 - 203 °F	ASTM E 831 Comments
	79.3 µm/m-°C	44.1 µin/in-°F	ISO 11359-2
	@Temperature 23.0 - 80.0 °C	@Temperature 73.4 - 176 °F	
Deflection Temperature at 1.8 MPa (264 psi)	118 °C	244 °F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	124 °C	255 °F	unannealed; ASTM D 648
	@Thickness 3.20 mm	@Thickness 0.126 in	
Vicat Softening Point	141 °C	286 °F	Rate A/50; ASTM D 1525
	141 °C	286 °F	Rate B/50; ISO 306
	142 °C	288 °F	Rate B/120; ISO 306

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China