SABIC Innovative Plastics Lexan® SLX1482T PC Copolymer

Category : Polymer , Thermoplastic , Polycarbonate (PC)

Material Notes:

Medium viscosity PC Copolymer, enhanced UV stabilization. Transprarent and tinted colors. Higher mold release content than SLX1432T.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-SLX1482T-PC-Copolymer.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.20 g/cc	1.20 g/cc	ASTM D 792
Density	1.20 g/cc	0.0434 lb/in³	ISO 1183
Water Absorption	0.12 % @Time 86400 sec	0.12 % @Time 24.0 hour	ASTM D 570
Moisture Absorption at Equilibrium	0.17 %	0.17 %	23°C / 50% RH; ISO 62
Water Absorption at Saturation	0.25 % @Temperature 23.0 °C	0.25 % @Temperature 73.4 °F	ISO 62
Linear Mold Shrinkage, Flow	0.0050 - 0.0070 cm/cm @Thickness 3.20 mm	0.0050 - 0.0070 in/in @Thickness 0.126 in	SABIC Method
Linear Mold Shrinkage, Transverse	0.0050 - 0.0070 cm/cm @Thickness 3.20 mm	0.0050 - 0.0070 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	69.0 MPa	10000 psi	50 mm/min; ISO 527
	72.0 MPa	10400 psi	Type I, 50 mm/min; ASTM D 638
Tensile Strength, Yield	65.0 MPa	9430 psi	50 mm/min; ISO 527
	67.0 MPa	9720 psi	Type I, 50 mm/min; ASTM D 638
Elongation at Break	110 %	110 %	Type I, 50 mm/min; ASTM D 638

Mechanical Properties	Metric	English	Comments
Elongation at Yield	6.0 %	6.0 %	Type I, 50 mm/min; ASTM D 638
	6.0 %	6.0 %	50 mm/min; ISO 527
Tensile Modulus	2.55 GPa	370 ksi	50 mm/min; ASTM D 638
	2.55 GPa	370 ksi	1 mm/min; ISO 527
Flexural Yield Strength	105 MPa	15200 psi	1.3 mm/min, 50 mm span; ASTM D 790
	105 MPa	15200 psi	2 mm/min; ISO 178
Flexural Modulus	2.50 GPa	363 ksi	1.3 mm/min, 50 mm span; ASTM D 790
	2.50 GPa	363 ksi	2 mm/min; ISO 178
Izod Impact, Notched	0.980 J/cm @Temperature -30.0 °C	1.84 ft-lb/in @Temperature -22.0 °F	ASTM D 256
	7.00 J/cm @Temperature 23.0 °C	13.1 ft-lb/in @Temperature 73.4 °F	ASTM D 256
Izod Impact, Unnotched	26.0 J/cm @Temperature 23.0 °C	48.7 ft-lb/in @Temperature 73.4 °F	ASTM D 4812
Izod Impact, Notched (ISO)	10.0 kJ/m² @Temperature -30.0 °C	4.76 ft-lb/in² @Temperature -22.0 °F	80*10*3; ISO 180/1A
	25.0 kJ/m² @Temperature 23.0 °C	11.9 ft-lb/in² @Temperature 73.4 °F	80*10*3; ISO 180/1A
Izod Impact, Unnotched (ISO)	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	80*10*3; ISO 180/1U
Charpy Impact Unnotched	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	Edgew 80*10*3 sp=62mm; ISO 179/1eU
Charpy Impact, Notched	1.50 J/cm² @Temperature -30.0 °C	7.14 ft-lb/in² @Temperature -22.0 °F	V-notch Edgew 80*10*3 sp=62mm; ISO 179/1eA
	3.00 J/cm² @Temperature 23.0 °C	14.3 ft-lb/in² @Temperature 73.4 °F	V-notch Edgew 80*10*3 sp=62mm; ISO 179/1eA
Impact Test	77.0 J @Temperature 23.0 °C	56.8 ft-lb @Temperature 73.4 °F	Instrumented Impact Total Energy; ASTM D 3763

Mechanical Properties	Metric	English	Comments
	85.0 J @Temperature -40.0 °C	62.7 ft-lb @Temperature -40.0 °F	Instrumented Impact Total Energy; ASTM D 3763

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	66.6 µm/m-°C @Temperature -40.0 - 40.0 °C	37.0 µin/in-°F @Temperature -40.0 - 104 °F	ISO 11359-2
	66.6 µm/m-°C @Temperature -40.0 - 40.0 °C	37.0 µin/in-°F @Temperature -40.0 - 104 °F	ASTM E 831
CTE, linear, Transverse to Flow	64.8 µm/m-°C @Temperature -40.0 - 40.0 °C	36.0 µin/in-°F @Temperature -40.0 - 104 °F	ISO 11359-2
	64.8 µm/m-°C @Temperature -40.0 - 40.0 °C	36.0 µin/in-°F @Temperature -40.0 - 104 °F	ASTM E 831
Deflection Temperature at 0.46 MPa (66 psi)	130 °C @Thickness 3.20 mm	266 °F @Thickness 0.126 in	unannealed; ASTM D 648
Deflection Temperature at 1.8 MPa (264 psi)	116 °C	241 °F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	118 °C @Thickness 3.20 mm	244 °F @Thickness 0.126 in	unannealed; ASTM D 648
Vicat Softening Point	135 °C	275 °F	Rate B/50; ASTM D 1525
	135 °C	275 °F	Rate B/50; ISO 306
	137 °C	279 °F	Rate B/120; ISO 306
Flammability, UL94	HB @Thickness 0.800 mm	HB @Thickness 0.0315 in	UL 94

Optical Properties	Metric	English	Comments
Refractive Index	1.59	1.59	ASTM D 542

Descriptive Properties	Value	Comments
Ball Pressure Test, 125°C +/- 2°C	PASSES	IEC 60695-10-2

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