SABIC Innovative Plastics Lexan® ML7677 PC (Asia Pacific)

Category : Polymer , Thermoplastic , Polycarbonate (PC)

Material Notes:

Transparent Polycarbonate in limited colors. Excellent processability, super high flow, flame retardant, UL rated V-1 at 2.0mm

Order this product through the following link:
http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Lexan-ML7677-PC-Asia-Pacific.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.23 g/cc	1.23 g/cc	ASTM D792
Density	1.23 g/cc	0.0444 lb/in³	ISO 1183
Moisture Absorption	0.340 %	0.340 %	23°C / 50% RH; ISO 62
Water Absorption at Saturation	0.27 %	0.27 %	ISO 62
Linear Mold Shrinkage, Flow	0.0060 - 0.0080 cm/cm @Thickness 3.20 mm	0.0060 - 0.0080 in/in @Thickness 0.126 in	SABIC Method
Linear Mold Shrinkage, Transverse	0.0060 - 0.0080 cm/cm @Thickness 3.20 mm	0.0060 - 0.0080 in/in @Thickness 0.126 in	SABIC Method
Melt Flow	32 g/10 min @Load 1.20 kg, Temperature 300 °C	32 g/10 min @Load 2.65 lb, Temperature 572 °F	ASTM D1238
Melt Index of Compound	30 g/10 min @Load 1.20 kg, Temperature 300 °C	30 g/10 min @Load 2.65 lb, Temperature 572 °F	MVR [cm^3/10 min]; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	53.0 MPa	7690 psi	Type I, 50 mm/min; ASTM D638
	55.0 MPa	7980 psi	50 mm/min; ISO 527
Tensile Strength, Yield	72.0 MPa	10400 psi	Type I, 50 mm/min; ASTM D638
	73.0 MPa	10600 psi	50 mm/min; ISO 527
Elongation at Break	50 %	50 %	Type I, 50 mm/min; ASTM D638
	72 %	72 %	50 mm/min; ISO 527
Elongation at Yield	5.0 %	5.0 %	Type I, 50 mm/min; ASTM D638
	5.0 %	5.0 %	50 mm/min; ISO 527

Mechanical Properties	Metric	English	Comments
Tensile Modulus	2.71 GPa	393 ksi	1 mm/min; ISO 527
	2.73 GPa	396 ksi	50 mm/min; ASTM D638
Flexural Yield Strength	108 MPa	15700 psi	1.3 mm/min, 50 mm span; ASTM D790
	110 MPa	16000 psi	2 mm/min; ISO 178
Flexural Modulus	2.37 GPa	344 ksi	1.3 mm/min, 50 mm span; ASTM D790
	2.63 GPa	381 ksi	2 mm/min; ISO 178
Izod Impact, Notched	0.450 J/cm	0.843 ft-lb/in	ASTM D256
	0.430 J/cm @Temperature -30.0 °C	0.806 ft-lb/in @Temperature -22.0 °F	ASTM D256
Izod Impact, Unnotched	21.5 J/cm	40.3 ft-lb/in	ASTM D4812
Izod Impact, Notched (ISO)	5.00 kJ/m²	2.38 ft-lb/in²	80*10*3; ISO 180/1A
	5.00 kJ/m² @Temperature -30.0 °C	2.38 ft-lb/in² @Temperature -22.0 °F	80*10*3; ISO 180/1A
Izod Impact, Unnotched (ISO)	182 kJ/m²	86.6 ft-lb/in²	80*10*3; ISO 180/1U
	181 kJ/m² @Temperature -30.0 °C	86.1 ft-lb/in² @Temperature -22.0 °F	80*10*3; ISO 180/1U
Charpy Impact Unnotched	13.2 J/cm²	62.8 ft-lb/in²	Edgew 80*10*3 sp=62mm; ISO 179/1eU
	13.1 J/cm² @Temperature -30.0 °C	62.3 ft-lb/in² @Temperature -22.0 °F	Edgew 80*10*3 sp=62mm; ISO 179/1eU
Charpy Impact, Notched	0.400 J/cm²	1.90 ft-lb/in²	Edgew 80*10*3 sp=62mm; ISO 179/1eA
	0.400 J/cm² @Temperature -30.0 °C	1.90 ft-lb/in² @Temperature -22.0 °F	Edgew 80*10*3 sp=62mm; ISO 179/1eA
Dart Drop, Total Energy	69.0 J @Temperature 23.0 °C	50.9 ft-lb @Temperature 73.4 °F	ASTM D3763

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	66.3 µm/m-°C @Temperature -40.0 - 40.0 °C	36.8 µin/in-°F @Temperature -40.0 - 104 °F	ASTM E 831

Thermal Properties	Metric	English	Comments
	72.3 µm/m-°C @Temperature 23.0 - 80.0 °C	40.2 µin/in-°F @Temperature 73.4 - 176 °F	ISO 11359-2
CTE, linear, Transverse to Flow	67.4 µm/m-°C @Temperature -40.0 - 40.0 °C	37.4 µin/in-°F @Temperature -40.0 - 104 °F	ASTM E 831
	74.9 µm/m-°C @Temperature 23.0 - 80.0 °C	41.6 µin/in-°F @Temperature 73.4 - 176 °F	ISO 11359-2
Deflection Temperature at 0.46 MPa (66 psi)	104 °C @Thickness 3.20 mm	219 °F @Thickness 0.126 in	unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	97.0 °C	207 °F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	94.0 °C @Thickness 3.20 mm	201 °F @Thickness 0.126 in	unannealed; ASTM D648
Vicat Softening Point	111 °C	232 °F	Rate B/50; ISO 306
	114 °C	237 °F	Rate B/120; ISO 306
	114 °C	237 °F	Rate B/50; ASTM D1525
Flammability, UL94	V-1 @Thickness 2.00 mm	V-1 @Thickness 0.0787 in	UL 94 by SABIC-IP

Optical Properties	Metric	English	Comments
Transmission, Visible	90 %	90 %	transparent; thickness not quantified

Electrical Properties	Metric	English	Comments
Volume Resistivity	<= 1.00e+16 ohm-cm	<= 1.00e+16 ohm-cm	ASTM D257
Surface Resistance	<= 1.00e+16 ohm	<= 1.00e+16 ohm	ASTM D257

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