

SABIC Innovative Plastics Lexan® ML7686 PC (Asia Pacific)

Category : Polymer , Thermoplastic , Polycarbonate (PC)

Material Notes:

Transparent Polycarbonate in limited colors. Excellent processability, super high flow. UL rated V-2 at 1.5mm.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Lexan-ML7686-PC-Asia-Pacific.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.20 g/cc	1.20 g/cc	ASTM D792
Density	1.20 g/cc	0.0434 lb/in ³	ISO 1183
Moisture Absorption	0.350 %	0.350 %	23°C / 50% RH; ISO 62
Water Absorption at Saturation	0.28 %	0.28 %	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
Melt Flow	23 g/10 min @Load 2.16 kg, Temperature 260 °C	23 g/10 min @Load 4.76 lb, Temperature 500 °F	ASTM D1238
	45 g/10 min @Load 1.20 kg, Temperature 300 °C	45 g/10 min @Load 2.65 lb, Temperature 572 °F	ASTM D1238
Melt Index of Compound	43 g/10 min @Load 1.20 kg, Temperature 300 °C	43 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	61.0 MPa	8850 psi	50 mm/min; ISO 527
	70.0 MPa	10200 psi	Type I, 50 mm/min; ASTM D638
Tensile Strength, Yield	70.0 MPa	10200 psi	Type I, 50 mm/min; ASTM D638
	71.0 MPa	10300 psi	50 mm/min; ISO 527
Elongation at Break	83 %	83 %	50 mm/min; ISO 527
	100 %	100 %	Type I, 50 mm/min; ASTM D638
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
	2.70 GPa	392 ksi	5 mm/min; ASTM D638
Flexural Yield Strength	101 MPa	14600 psi	1.3 mm/min, 50 mm span; ASTM D790
	107 MPa	15500 psi	2 mm/min; ISO 178
Flexural Modulus	2.47 GPa	358 ksi	1.3 mm/min, 50 mm span; ASTM D790
	2.53 GPa	367 ksi	2 mm/min; ISO 178
Izod Impact, Notched	0.400 J/cm	0.749 ft-lb/in	ASTM D256
	0.450 J/cm	0.843 ft-lb/in	ASTM D256
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Izod Impact, Notched (ISO)	6.00 kJ/m ²	2.86 ft-lb/in ²	80*10*3; ISO 180/1A
	5.00 kJ/m ²	2.38 ft-lb/in ²	80*10*3; ISO 180/1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Izod Impact, Unnotched (ISO)	183 kJ/m ²	87.1 ft-lb/in ²	80*10*3; ISO 180/1U
	183 kJ/m ²	87.1 ft-lb/in ²	80*10*3; ISO 180/1U
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact Unnotched	13.2 J/cm ²	62.8 ft-lb/in ²	Edgew 80*10*3 sp=62mm; ISO 179/1eU
	13.2 J/cm ²	62.8 ft-lb/in ²	Edgew 80*10*3 sp=62mm; ISO 179/1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact, Notched	0.500 J/cm ²	2.38 ft-lb/in ²	Edgew 80*10*3 sp=62mm; ISO 179/1eA
	0.500 J/cm ²	2.38 ft-lb/in ²	Edgew 80*10*3 sp=62mm; ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Dart Drop, Total Energy	80.0 J	59.0 ft-lb	ASTM D3763
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	66.0 µm/m-°C	36.7 µin/in-°F	ASTM E 831
	@Temperature -40.0 - 40.0 °C	@Temperature -40.0 - 104 °F	
	72.0 µm/m-°C	40.0 µin/in-°F	ISO 11359-2

Thermal Properties	Metric @Temperature 23.0 - 80.0 °C	English @Temperature 73.4 - 176 °F	Comments
CTE, linear, Transverse to Flow	67.0 µm/m-°C	37.2 µin/in-°F	ASTM E 831
	@Temperature -40.0 - 40.0 °C	@Temperature -40.0 - 104 °F	
	74.0 µm/m-°C	41.1 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)	97.0 °C	207 °F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	94.0 °C	201 °F	unannealed; ASTM D648
	@Thickness 3.20 mm	@Thickness 0.126 in	
Vicat Softening Point	111 °C	232 °F	Rate B/50; ISO 306
	112 °C	234 °F	Rate B/50; ASTM D1525
	114 °C	237 °F	Rate B/120; ISO 306
Flammability, UL94	V-2	V-2	UL 94 by SABIC-IP
	@Thickness 1.50 mm	@Thickness 0.0591 in	

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

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