

SABIC Innovative Plastics Lexan® HPM1914 PC Copolymer (Europe-Africa-Middle East)

Category : Polymer , Thermoplastic , Polycarbonate (PC)

Material Notes:

High flow specialty polycarbonate with enhanced hemocompatibility. For medical devices and pharmaceutical applications. Healthcare management of change, biocompatible (ISO10993 or USP Class VI). EtO sterilizable. This data was supplied by SABIC-IP for the Europe-Africa-Middle East region.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Lexan-HPM1914-PC-Copolymer-Europe-Africa-Middle-East.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	0.060 %	0.060 %	23°C / 50% RH; ISO 62
Water Absorption at Saturation	0.23 % @Temperature 23.0 °C	0.23 % @Temperature 73.4 °F	ISO 62
Linear Mold Shrinkage, Flow	0.0060 - 0.0090 cm/cm @Thickness 3.20 mm	0.0060 - 0.0090 in/in @Thickness 0.126 in	SABIC Method
Melt Flow	23 g/10 min @Load 1.20 kg, Temperature 300 °C	23 g/10 min @Load 2.65 lb, Temperature 572 °F	[cm ³ /10 min] Melt Volume Rate; ISO 1133
	25 g/10 min @Load 1.20 kg, Temperature 300 °C	25 g/10 min @Load 2.65 lb, Temperature 572 °F	ASTM D 1238

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	64.0 MPa	9280 psi	Type I, 50 mm/min; ASTM D 638
	64.0 MPa	9280 psi	50 mm/min; ISO 527
Tensile Strength, Yield	60.0 MPa	8700 psi	50 mm/min; ISO 527
	61.0 MPa	8850 psi	Type I, 50 mm/min; ASTM D 638
Elongation at Break	122 %	122 %	50 mm/min; ISO 527
	129 %	129 %	Type I, 50 mm/min; ASTM D 638
Elongation at Yield	5.7 %	5.7 %	50 mm/min; ISO 527

Mechanical Properties	6.0% Metric	6.0% English	Type I, 50 mm/min; ASTM D 638 Comments
Tensile Modulus	2.31 GPa	335 ksi	50 mm/min; ASTM D 638
	2.40 GPa	348 ksi	1 mm/min; ISO 527
Flexural Yield Strength	92.0 MPa	13300 psi	2 mm/min; ISO 178
	99.0 MPa	14400 psi	1.3 mm/min, 50 mm span; ASTM D 790
Flexural Modulus	2.15 GPa	312 ksi	2 mm/min; ISO 178
	2.38 GPa	345 ksi	1.3 mm/min, 50 mm span; ASTM D 790
Izod Impact, Notched	2.37 J/cm @Temperature -30.0 °C	4.44 ft-lb/in @Temperature -22.0 °F	ASTM D 256
	7.62 J/cm @Temperature 23.0 °C	14.3 ft-lb/in @Temperature 73.4 °F	ASTM D 256
Izod Impact, Notched (ISO)	20.0 kJ/m² @Temperature -30.0 °C	9.52 ft-lb/in² @Temperature -22.0 °F	80*10*3; ISO 180/1A
	70.0 kJ/m² @Temperature 23.0 °C	33.3 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
	NB @Temperature -30.0 °C	NB @Temperature -22.0 °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
	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	Edgew 80*10*3 sp=62mm; ISO 179/1eU
Charpy Impact, Notched	2.00 J/cm² @Temperature -30.0 °C	9.52 ft-lb/in² @Temperature -22.0 °F	V-notch Edgew 80*10*3 sp=62mm; ISO 179/1eA
	7.50 J/cm² @Temperature 23.0 °C	35.7 ft-lb/in² @Temperature 73.4 °F	V-notch Edgew 80*10*3 sp=62mm; ISO 179/1eA
Impact Test	79.0 J @Temperature 23.0 °C	58.3 ft-lb @Temperature 73.4 °F	Instrumented Impact Total Energy; ASTM D 3763

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	75.0 $\mu\text{m}/\text{m}^{\circ}\text{C}$	41.7 $\mu\text{in}/\text{in}^{\circ}\text{F}$	ASTM E 831
	@Temperature -40.0 - 40.0 $^{\circ}\text{C}$	@Temperature -40.0 - 104 $^{\circ}\text{F}$	
	75.0 $\mu\text{m}/\text{m}^{\circ}\text{C}$	41.7 $\mu\text{in}/\text{in}^{\circ}\text{F}$	ISO 11359-2
	@Temperature 23.0 - 80.0 $^{\circ}\text{C}$	@Temperature 73.4 - 176 $^{\circ}\text{F}$	
CTE, linear, Transverse to Flow	78.0 $\mu\text{m}/\text{m}^{\circ}\text{C}$	43.3 $\mu\text{in}/\text{in}^{\circ}\text{F}$	ASTM E 831
	@Temperature -40.0 - 40.0 $^{\circ}\text{C}$	@Temperature -40.0 - 104 $^{\circ}\text{F}$	
	78.0 $\mu\text{m}/\text{m}^{\circ}\text{C}$	43.3 $\mu\text{in}/\text{in}^{\circ}\text{F}$	ISO 11359-2
	@Temperature 23.0 - 80.0 $^{\circ}\text{C}$	@Temperature 73.4 - 176 $^{\circ}\text{F}$	
Deflection Temperature at 1.8 MPa (264 psi)	122 $^{\circ}\text{C}$	252 $^{\circ}\text{F}$	Flatw 80*10*4 sp=64mm; ISO 75/Af
	123 $^{\circ}\text{C}$	253 $^{\circ}\text{F}$	
	@Thickness 3.20 mm	@Thickness 0.126 in	unannealed; ASTM D 648
Vicat Softening Point	140 $^{\circ}\text{C}$	284 $^{\circ}\text{F}$	Rate B/50; ASTM D 1525
	140 $^{\circ}\text{C}$	284 $^{\circ}\text{F}$	Rate B/50; ISO 306
	143 $^{\circ}\text{C}$	289 $^{\circ}\text{F}$	Rate B/120; ISO 306

Optical Properties	Metric	English	Comments
Haze	4.5 %	4.5 %	ASTM D 1003
	@Thickness 2.54 mm	@Thickness 0.100 in	
Transmission, Visible	77 %	77 %	ASTM D 1003
	@Thickness 2.54 mm	@Thickness 0.100 in	

Descriptive Properties	Value	Comments
Ball Pressure Test, 75 $^{\circ}\text{C}$ +/- 2 $^{\circ}\text{C}$	PASSES	IEC 60695-10-2

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