

SABIC Innovative Plastics Lexan® LS1 PC

Category : Polymer , Thermoplastic , Polycarbonate (PC)

Material Notes:

UL rated HB as of 10/97. 200 series recommended when V-2 rating required. Automotive lens applications. Low viscosity. UV-stabilized. Transparent colors only.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Lexan-LS1-PC.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.20 g/cc	1.20 g/cc	ASTM D792
Water Absorption	0.15 %	0.15 %	ASTM D570
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Flow	0.0050 - 0.0070 cm/cm	0.0050 - 0.0070 in/in	SABIC Method
	@Thickness 3.20 mm	@Thickness 0.126 in	
Melt Flow	17.5 g/10 min	17.5 g/10 min	ASTM D1238
	@Load 1.20 kg, Temperature 300 °C	@Load 2.65 lb, Temperature 572 °F	

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	62.0 MPa	8990 psi	Type I, 50 mm/min; ASTM D638
Elongation at Break	125 %	125 %	Type I, 50 mm/min; ASTM D638
Flexural Yield Strength	96.0 MPa	13900 psi	1.3 mm/min, 50 mm span; ASTM D790
Flexural Modulus	2.34 GPa	339 ksi	1.3 mm/min, 50 mm span; ASTM D790
Izod Impact, Notched	6.94 J/cm	13.0 ft-lb/in	ASTM D256
Tensile Impact Strength	472 kJ/m ²	225 ft-lb/in ²	Type S; ASTM D1822
Dart Drop, Total Energy	62.0 J	45.7 ft-lb	Instrumented Impact Energy @ peak; ASTM D3763
	169 J	125 ft-lb	

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	129 °C	264 °F	unannealed; ASTM D648
	@Thickness 6.40 mm	@Thickness 0.252 in	
UL RTI, Electrical	130 °C	266 °F	UL 746B

Thermal Properties	Metric	English	Comments
UL RTI, Mechanical without Impact	125 °C	257 °F	UL 746B
Flammability, UL94	HB @Thickness 1.47 mm	HB @Thickness 0.0579 in	UL 94

Optical Properties	Metric	English	Comments
Transmission, Visible	88 %	88 %	2.54 mm; ASTM D1003

Electrical Properties	Metric	English	Comments
Comparative Tracking Index	250 - 400 V	250 - 400 V	UL 746A
Hot Wire Ignition, HWI	7.0 - 15 sec	7.0 - 15 sec	UL 746A
High Amp Arc Ignition, HAI	60 - 120 arcs	60 - 120 arcs	UL 746A
High Voltage Arc-Tracking Rate, HVTR	25.4 - 80.0 mm/min	1.00 - 3.15 in/min	UL 746A

Descriptive Properties	Value	Comments
UV-light, water exposure/immersion	F1	UL 746C

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