

SABIC Innovative Plastics Lexan® 4301 PPC+PC

Category : Polymer , Thermoplastic , Polycarbonate (PC)

Material Notes:

Lexan 4301 is a high heat resistant poly (ester) carbonate resin for injection molding. 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-4301-PPCPC.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/in ³	ISO 1183
Moisture Absorption at Equilibrium	0.35 %	0.35 %	23°C / 50% RH; ISO 62
Water Absorption at Saturation	0.16 % @Temperature 23.0 °C	0.16 % @Temperature 73.4 °F	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	8.0 g/10 min @Load 1.20 kg, Temperature 300 °C	8.0 g/10 min @Load 2.65 lb, Temperature 572 °F	ASTM D 1238
	40 g/10 min @Load 2.16 kg, Temperature 330 °C	40 g/10 min @Load 4.76 lb, Temperature 626 °F	[cm ³ /10 min] Melt Volume Rate; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	60.0 MPa	8700 psi	50 mm/min; ISO 527
	69.0 MPa	10000 psi	Type I, 50 mm/min; ASTM D 638
Tensile Strength, Yield	64.0 MPa	9280 psi	Type I, 50 mm/min; ASTM D 638
	65.0 MPa	9430 psi	50 mm/min; ISO 527
Elongation at Break	>= 50 %	>= 50 %	Type I, 50 mm/min; ASTM D 638
	85 %	85 %	50 mm/min; ISO 527
Elongation at Yield	6.0 %	6.0 %	50 mm/min; ISO 527
	7.0 %	7.0 %	Type I, 50 mm/min; ASTM D 638
Tensile Modulus	2.10 GPa	305 ksi	5 mm/min; ASTM D 638

Mechanical Properties	Metric 2.15 GPa	English 312 ksi	Comments 1 mm/min; ISO 527
Flexural Yield Strength	95.0 MPa	13800 psi	1.3 mm/min, 50 mm span; ASTM D 790
	100 MPa	14500 psi	2 mm/min; ISO 178
Flexural Modulus	2.20 GPa	319 ksi	1.3 mm/min, 50 mm span; ASTM D 790
	2.30 GPa	334 ksi	2 mm/min; ISO 178
Izod Impact, Notched	1.25 J/cm @Temperature -30.0 °C	2.34 ft-lb/in @Temperature -22.0 °F	ASTM D 256
	6.00 J/cm @Temperature 23.0 °C	11.2 ft-lb/in @Temperature 73.4 °F	ASTM D 256
Izod Impact, Notched (ISO)	11.0 kJ/m² @Temperature -30.0 °C	5.23 ft-lb/in² @Temperature -22.0 °F	80*10*3; ISO 180/1A
	45.0 kJ/m² @Temperature 23.0 °C	21.4 ft-lb/in² @Temperature 73.4 °F	80*10*3; ISO 180/1A
Izod Impact, Unnotched (ISO)	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	80*10*3; ISO 180/1U
	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	80*10*3; ISO 180/1U
Charpy Impact Unnotched	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	Edgew 80*10*3 sp=62mm; ISO 179/1eU
	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	Edgew 80*10*3 sp=62mm; ISO 179/1eU
Charpy Impact, Notched	1.20 J/cm² @Temperature -30.0 °C	5.71 ft-lb/in² @Temperature -22.0 °F	V-notch Edgew 80*10*3 sp=62mm; ISO 179/1eA
	5.00 J/cm² @Temperature 23.0 °C	23.8 ft-lb/in² @Temperature 73.4 °F	V-notch Edgew 80*10*3 sp=62mm; ISO 179/1eA
Impact Test	120 J @Temperature 23.0 °C	88.5 ft-lb @Temperature 73.4 °F	Instrumented Impact Total Energy; ASTM D 3763

Thermal Properties	Metric	English	Comments
	80.0 µm/m-°C	44.4 µin/in-°F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	@ Temperature -40.0 - 40.0 °C	@ Temperature -40.0 - 104 °F	ISO 11359-2
	80.0 µm/m-°C	44.4 µin/in-°F	ASTM E 831
	@ Temperature -40.0 - 40.0 °C	@ Temperature -40.0 - 104 °F	
CTE, linear, Transverse to Flow	80.0 µm/m-°C	44.4 µin/in-°F	ISO 11359-2
	@ Temperature -40.0 - 40.0 °C	@ Temperature -40.0 - 104 °F	
	80.0 µm/m-°C	44.4 µin/in-°F	ASTM E 831
	@ Temperature -40.0 - 40.0 °C	@ Temperature -40.0 - 104 °F	
Deflection Temperature at 1.8 MPa (264 psi)	134 °C	273 °F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	139 °C	282 °F	unannealed; ASTM D 648
	@ Thickness 3.20 mm	@ Thickness 0.126 in	
Vicat Softening Point	151 °C	304 °F	Rate B/50; ISO 306
	153 °C	307 °F	Rate B/120; ISO 306
	162 °C	324 °F	Rate B/50; ASTM D 1525

Descriptive Properties	Value	Comments
Ball Pressure Test, 125°C +/- 2°C	pass	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