

## SABIC Innovative Plastics Lexan® FXD9810 PC Copolymer

Category : Polymer , Thermoplastic , Polycarbonate (PC)

### Material Notes:

Non-chlorinated, non-brominated Flame retardant PC-siloxane copolymer blend. Excellent processability, super high flow, good impact, UL rated V-0. Limited translucent colors.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-Lexan-FXD9810-PC-Copolymer.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Lexan-FXD9810-PC-Copolymer.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.19 g/cc	1.19 g/cc	ASTM D792
Density	1.19 g/cc	0.0430 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption	0.0800 %	0.0800 %	23°C / 50% RH; ISO 62
Water Absorption at Saturation	0.26 %	0.26 %	ISO 62
Linear Mold Shrinkage, Flow	0.0040 - 0.0080 cm/cm @Thickness 3.20 mm	0.0040 - 0.0080 in/in @Thickness 0.126 in	SABIC Method
Linear Mold Shrinkage, Transverse	0.0040 - 0.0080 cm/cm @Thickness 3.20 mm	0.0040 - 0.0080 in/in @Thickness 0.126 in	SABIC Method
Melt Flow	30 g/10 min @Load 1.20 kg, Temperature 300 °C	30 g/10 min @Load 2.65 lb, Temperature 572 °F	ASTM D1238
Melt Index of Compound	29 g/10 min @Load 1.20 kg, Temperature 300 °C	29 g/10 min @Load 2.65 lb, Temperature 572 °F	MVR [cm <sup>3</sup> /10 min]; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	49.0 MPa	7110 psi	50 mm/min; ISO 527
	50.0 MPa	7250 psi	Type I, 50 mm/min; ASTM D638
Tensile Strength, Yield	55.0 MPa	7980 psi	Type I, 50 mm/min; ASTM D638
	56.0 MPa	8120 psi	50 mm/min; ISO 527
Elongation at Break	95 %	95 %	50 mm/min; ISO 527
	100 %	100 %	Type I, 50 mm/min; ASTM D638
Elongation at Yield	5.6 %	5.6 %	Type I, 50 mm/min; ASTM D638
	5.6 %	5.6 %	50 mm/min; ISO 527

Mechanical Properties	Metric	English	Comments
Tensile Modulus	2.19 GPa	319 ksi	1 mm/min; ISO 527
	2.20 GPa	319 ksi	50 mm/min; ASTM D638
Flexural Yield Strength	91.0 MPa	13200 psi	2 mm/min; ISO 178
	94.0 MPa	13600 psi	1.3 mm/min, 50 mm span; ASTM D790
Flexural Modulus	2.10 GPa	305 ksi	1.3 mm/min, 50 mm span; ASTM D790
	2.25 GPa	326 ksi	2 mm/min; ISO 178
Izod Impact, Notched	6.90 J/cm	12.9 ft-lb/in	ASTM D256
	2.20 J/cm	4.12 ft-lb/in	ASTM D256
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Izod Impact, Notched (ISO)	40.0 kJ/m <sup>2</sup>	19.0 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1A
	19.0 kJ/m <sup>2</sup>	9.04 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact, Notched	4.90 J/cm <sup>2</sup>	23.3 ft-lb/in <sup>2</sup>	Edgew 80*10*4 sp=62mm; ISO 179/1eA
Dart Drop, Total Energy	63.0 J	46.5 ft-lb	ASTM D3763
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	69.0 µm/m-°C	38.3 µin/in-°F	ISO 11359-2
	@Temperature 23.0 - 80.0 °C	@Temperature 73.4 - 176 °F	
	70.5 µm/m-°C	39.2 µin/in-°F	ASTM E 831
	@Temperature -40.0 - 40.0 °C	@Temperature -40.0 - 104 °F	
CTE, linear, Transverse to Flow	68.0 µm/m-°C	37.8 µin/in-°F	ISO 11359-2
	@Temperature 23.0 - 80.0 °C	@Temperature 73.4 - 176 °F	
	70.3 µm/m-°C	39.1 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)	118 °C	244 °F	unannealed; ASTM D648
	@Thickness 3.20 mm	@Thickness 0.126 in	

Vicat Softening Point Thermal Properties	136 °C Metric	277 °F English	Rate B/50: ASTM D1525 Comments
	137 °C	279 °F	Rate B/50; ISO 306
	138 °C	280 °F	Rate B/120; ISO 306
Flammability, UL94	V-1	V-1	UL 94
	@Thickness 1.00 mm	@Thickness 0.0394 in	
Glow Wire Test	V-0	V-0	UL 94
	@Thickness 1.20 mm	@Thickness 0.0472 in	
Glow Wire Test	875 °C	1610 °F	IEC 60695-2-13
	960 °C	1760 °F	IEC 60695-2-12
	@Thickness 1.00 mm	@Thickness 0.0394 in	

Descriptive Properties	Value	Comments
Ball Pressure Test, 125°C +/- 2°C	Pass	IEC 60695-10-2

## Contact Songhan Plastic Technology Co.,Ltd.

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