

## SABIC Innovative Plastics Lexan® FST9436 PC Copolymer

Category : Polymer , Thermoplastic , Polycarbonate (PC)

### Material Notes:

Medium viscosity opaque, low smoke, and OSU 65/65 compliant PC Copolymer

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-Lexan-FST9436-PC-Copolymer.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Lexan-FST9436-PC-Copolymer.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.29 g/cc	1.29 g/cc	ASTM D792
Density	1.29 g/cc	0.0466 lb/in <sup>3</sup>	ISO 1183
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	10 g/10 min @Load 1.20 kg, Temperature 300 °C	10 g/10 min @Load 2.65 lb, Temperature 572 °F	ASTM D1238
Melt Index of Compound	9.0 g/10 min @Load 1.20 kg, Temperature 300 °C	9.0 g/10 min @Load 2.65 lb, Temperature 572 °F	MVR [cm <sup>3</sup> /10 min]; ISO 1133
	44 g/10 min @Load 5.00 kg, Temperature 300 °C	44 g/10 min @Load 11.0 lb, Temperature 572 °F	MVR [cm <sup>3</sup> /10 min]; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	57.0 MPa	8270 psi	Type I, 50 mm/min; ASTM D638
	58.0 MPa	8410 psi	50 mm/min; ISO 527
Tensile Strength, Yield	65.0 MPa	9430 psi	Type I, 50 mm/min; ASTM D638
	65.0 MPa	9430 psi	50 mm/min; ISO 527
Elongation at Break	92 %	92 %	50 mm/min; ISO 527
	103 %	103 %	Type I, 50 mm/min; ASTM D638
Elongation at Yield	6.3 %	6.3 %	50 mm/min; ISO 527
	6.5 %	6.5 %	Type I, 50 mm/min; ASTM D638
Tensile Modulus	2.26 GPa	328 ksi	5 mm/min; ASTM D638
	2.26 GPa	328 ksi	1 mm/min; ISO 527

Mechanical Properties	Metric Pa	English psi	Comments ISO 178
	102 MPa	14800 psi	1.3 mm/min, 50 mm span; ASTM D790
Flexural Modulus	2.28 GPa	331 ksi	2 mm/min; ISO 178
	2.34 GPa	339 ksi	1.3 mm/min, 50 mm span; ASTM D790
Izod Impact, Notched	4.11 J/cm	7.70 ft-lb/in	ASTM D256
	1.23 J/cm	2.30 ft-lb/in	ASTM D256
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Izod Impact, Notched (ISO)	22.0 kJ/m <sup>2</sup>	10.5 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1A
	13.0 kJ/m <sup>2</sup>	6.19 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact, Notched	2.70 J/cm <sup>2</sup>	12.8 ft-lb/in <sup>2</sup>	Edgew 80*10*4 sp=62mm; ISO 179/1eA
Dart Drop, Total Energy	74.0 J	54.6 ft-lb	ASTM D3763
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	60.0 µm/m-°C	33.3 µin/in-°F	ISO 11359-2
	@Temperature -40.0 - 40.0 °C	@Temperature -40.0 - 104 °F	
	60.0 µm/m-°C	33.3 µin/in-°F	ASTM E 831
	@Temperature -40.0 - 40.0 °C	@Temperature -40.0 - 104 °F	
CTE, linear, Transverse to Flow	63.0 µm/m-°C	35.0 µin/in-°F	ISO 11359-2
	@Temperature -40.0 - 40.0 °C	@Temperature -40.0 - 104 °F	
	63.0 µm/m-°C	35.0 µin/in-°F	ASTM E 831
	@Temperature -40.0 - 40.0 °C	@Temperature -40.0 - 104 °F	
Hot Ball Pressure Test	<= 125 °C	<= 257 °F	IEC 60695-10-2
Deflection Temperature at 1.8 MPa (264 psi)	131 °C	268 °F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	134 °C	273 °F	unannealed; ASTM D648
	@Thickness 3.20 mm	@Thickness 0.126 in	

Vicat Softening Point Thermal Properties	152 °C Metric	306 °F English	Rate B/50; ISO 306 Comments
	154 °C	309 °F	Rate B/50; ASTM D1525
	154 °C	309 °F	Rate B/120; ISO 306

Descriptive Properties	Value	Comments
NBS Smoke Density, Flaming, Dmax	<40	ASTM E 662
OSU total heat release (2 minute test)	<65kW-min/m <sup>2</sup>	FAR 25.853
OSU peak heat release rate (5 minute test)	<65kW/m <sup>2</sup>	FAR 25.853
Vertical Burn a (60s) passes at	<15sec	FAR 25.853
Vertical Burn b (12s) passes at	<15sec	FAR 25.853

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