

## SABIC Innovative Plastics Lexan® FXD9945A PC (Asia Pacific)

Category : Polymer , Thermoplastic , Polycarbonate (PC)

### Material Notes:

UV stabilized Visualfx FR PC with non-brominated and non-chlorinated flame retardant systems. It is available Only in white diffused effect(WH8B111X) meeting UL-94 V0 at 2mm for thin wall applications.This data was supplied by SABIC-IP for the Asia Pacific region.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-Lexan-FXD9945A-PC-Asia-Pacific.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Lexan-FXD9945A-PC-Asia-Pacific.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 <sup>3</sup>	ISO 1183
Moisture Absorption at Equilibrium	0.15 %	0.15 %	23°C / 50% RH; ISO 62
Water Absorption at Saturation	0.35 % @Temperature 23.0 °C	0.35 % @Temperature 73.4 °F	ISO 62
Linear Mold Shrinkage, Flow	0.0050 - 0.0070 cm/cm @Thickness 3.20 mm	0.0050 - 0.0070 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 D 1238
	10 g/10 min @Load 1.20 kg, Temperature 300 °C	10 g/10 min @Load 2.65 lb, Temperature 572 °F	[cm <sup>3</sup> /10 min] Melt Volume Rate; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	66.0 MPa	9570 psi	Type I, 50 mm/min; ASTM D 638
	68.0 MPa	9860 psi	50 mm/min; ISO 527
Tensile Strength, Yield	64.0 MPa	9280 psi	Type I, 50 mm/min; ASTM D 638
	66.0 MPa	9570 psi	50 mm/min; ISO 527
Elongation at Break	120 %	120 %	Type I, 50 mm/min; ASTM D 638
	120 %	120 %	50 mm/min; ISO 527
Elongation at Yield	6.0 %	6.0 %	Type I, 50 mm/min; ASTM D 638
	6.0 %	6.0 %	50 mm/min; ISO 527
Tensile Modulus	2.37 GPa	344 ksi	1 mm/min; ISO 527

Mechanical Properties	Metric 2.38 GPa	English 343 ksi	Comments 5 mm/min; ASTM D 638
Flexural Yield Strength	90.0 MPa	13100 psi	2 mm/min; ISO 178
	102 MPa	14800 psi	1.3 mm/min, 50 mm span; ASTM D 790
Flexural Modulus	2.25 GPa	326 ksi	2 mm/min; ISO 178
	2.45 GPa	355 ksi	1.3 mm/min, 50 mm span; ASTM D 790
Izod Impact, Notched	1.10 J/cm @Temperature -30.0 °C	2.06 ft-lb/in @Temperature -22.0 °F	ASTM D 256
	8.20 J/cm @Temperature 23.0 °C	15.4 ft-lb/in @Temperature 73.4 °F	ASTM D 256
Izod Impact, Notched (ISO)	12.0 kJ/m <sup>2</sup> @Temperature -30.0 °C	5.71 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	80*10*3; ISO 180/1A
	70.0 kJ/m <sup>2</sup> @Temperature 23.0 °C	33.3 ft-lb/in <sup>2</sup> @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	1.40 J/cm <sup>2</sup> @Temperature -30.0 °C	6.66 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	V-notch Edgew 80*10*3 sp=62mm; ISO 179/1eA
	7.30 J/cm <sup>2</sup> @Temperature 23.0 °C	34.7 ft-lb/in <sup>2</sup> @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
	68.0 µm/m-°C	37.8 µin/in-°F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	40.0 °C	104 °F	ASTM E 831
CTE, linear, Transverse to Flow	73.0 µm/m-°C @Temperature -40.0 - 40.0 °C	40.6 µin/in-°F @Temperature -40.0 - 104 °F	ASTM E 831
Deflection Temperature at 1.8 MPa (264 psi)	127 °C @Thickness 3.20 mm	261 °F @Thickness 0.126 in	unannealed; ASTM D 648
Vicat Softening Point	140 °C	284 °F	Rate B/50; ISO 306
	141 °C	286 °F	Rate B/120; ISO 306
	143 °C	289 °F	Rate B/50; ASTM D 1525
Flammability, UL94	V-0 @Thickness 2.00 mm	V-0 @Thickness 0.0787 in	UL 94

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

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