

## SABIC Innovative Plastics Lexan® FXD9945A PC (Europe-Africa-Middle East)

Category : Polymer , Thermoplastic , Polycarbonate (PC)

### Material Notes:

UV stabilized Visulfx 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 Europe-Africa-Middle East region.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-Lexan-FXD9945A-PC-Europe-Africa-Middle-East.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Lexan-FXD9945A-PC-Europe-Africa-Middle-East.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

Mechanical Properties	Metric Pa	English	Comments ISO 527
	2.38 GPa	345 ksi	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	2.06 ft-lb/in	ASTM D 256
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	8.20 J/cm	15.4 ft-lb/in	ASTM D 256
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Izod Impact, Notched (ISO)	12.0 kJ/m <sup>2</sup>	5.71 ft-lb/in <sup>2</sup>	80*10*3; ISO 180/1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	70.0 kJ/m <sup>2</sup>	33.3 ft-lb/in <sup>2</sup>	80*10*3; ISO 180/1A
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Izod Impact, Unnotched (ISO)	NB	NB	80*10*3; ISO 180/1U
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	NB	NB	80*10*3; ISO 180/1U
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact Unnotched	NB	NB	Edgew 80*10*3 sp=62mm; ISO 179/1eU
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	NB	NB	Edgew 80*10*3 sp=62mm; ISO 179/1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact, Notched	1.40 J/cm <sup>2</sup>	6.66 ft-lb/in <sup>2</sup>	V-notch Edgew 80*10*3 sp=62mm; ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	7.30 J/cm <sup>2</sup>	34.7 ft-lb/in <sup>2</sup>	V-notch Edgew 80*10*3 sp=62mm; ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Impact Test	79.0 J	58.3 ft-lb	Instrumented Impact Total Energy; ASTM D 3763
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
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Thermal Properties	Metric $m/m-^{\circ}C$	English $in-^{\circ}F$	Comments
CTE, linear, Parallel to Flow	@Temperature -40.0 - 40.0 $^{\circ}C$	@Temperature -40.0 - 104 $^{\circ}F$	ASTM E 831
CTE, linear, Transverse to Flow	73.0 $\mu m/m-^{\circ}C$ @Temperature -40.0 - 40.0 $^{\circ}C$	40.6 $\mu in/in-^{\circ}F$ @Temperature -40.0 - 104 $^{\circ}F$	ASTM E 831
Deflection Temperature at 1.8 MPa (264 psi)	127 $^{\circ}C$ @Thickness 3.20 mm	261 $^{\circ}F$ @Thickness 0.126 in	unannealed; ASTM D 648
Vicat Softening Point	140 $^{\circ}C$	284 $^{\circ}F$	Rate B/50; ISO 306
	141 $^{\circ}C$	286 $^{\circ}F$	Rate B/120; ISO 306
	143 $^{\circ}C$	289 $^{\circ}F$	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 $^{\circ}C$ +/- 2 $^{\circ}C$	PASSES	IEC 60695-10-2

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