

## SABIC Innovative Plastics Lexan® EXL9414T PC Copolymer (Europe-Africa-Middle East)

Category : Polymer , Thermoplastic , Polycarbonate (PC)

### Material Notes:

Lexan® EXL9414T resin grade is a halogen-free flame retardant polycarbonate featuring transparency, -40 degree C ductility and UL-94 V0 rating for injection molding applications. Excellent impact combined with good flow, all transparent colorability for aesthetics and thin wall flame retradancy makes this product an excellent candidate for thin wall applications.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-Lexan-EXL9414T-PC-Copolymer-Europe-Africa-Middle-East.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Lexan-EXL9414T-PC-Copolymer-Europe-Africa-Middle-East.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	0.0900 %	0.0900 %	23°C / 50% RH; ISO 62
Water Absorption at Saturation	0.12 %	0.12 %	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
Melt Flow	13 g/10 min @Load 1.20 kg, Temperature 300 °C	13 g/10 min @Load 2.65 lb, Temperature 572 °F	ASTM D1238
Melt Index of Compound	12 g/10 min @Load 1.20 kg, Temperature 300 °C	12 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	55.0 MPa	7980 psi	50 mm/min; ISO 527
	59.0 MPa	8560 psi	Type I, 50 mm/min; ASTM D638
Tensile Strength, Yield	56.0 MPa	8120 psi	50 mm/min; ISO 527
	57.0 MPa	8270 psi	Type I, 50 mm/min; ASTM D638
Elongation at Break	108 %	108 %	50 mm/min; ISO 527
	123.9 %	123.9 %	Type I, 50 mm/min; ASTM D638
Elongation at Yield	5.4 %	5.4 %	50 mm/min; ISO 527
	5.6 %	5.6 %	Type I, 50 mm/min; ASTM D638

Mechanical Properties	Metric <sup>°Pa</sup>	English	Comments ; ASTM D638
	2.30 GPa	334 ksi	1 mm/min; ISO 527
Flexural Yield Strength	88.0 MPa	12800 psi	2 mm/min; ISO 178
	92.0 MPa	13300 psi	1.3 mm/min, 50 mm span; ASTM D790
Flexural Modulus	2.12 GPa	307 ksi	2 mm/min; ISO 178
	2.18 GPa	316 ksi	1.3 mm/min, 50 mm span; ASTM D790
Izod Impact, Notched	8.24 J/cm	15.4 ft-lb/in	ASTM D256
	7.12 J/cm	13.3 ft-lb/in	ASTM D256
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Izod Impact, Notched (ISO)	65.0 kJ/m <sup>2</sup>	30.9 ft-lb/in <sup>2</sup>	80*10*3; ISO 180/1A
	55.0 kJ/m <sup>2</sup>	26.2 ft-lb/in <sup>2</sup>	80*10*3; ISO 180/1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Izod Impact, Unnotched (ISO)	NB	NB	80*10*3; ISO 180/1U
	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
	NB	NB	Edgew 80*10*3 sp=62mm; ISO 179/1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact, Notched	7.00 J/cm <sup>2</sup>	33.3 ft-lb/in <sup>2</sup>	Edgew 80*10*3 sp=62mm; ISO 179/1eA
	6.00 J/cm <sup>2</sup>	28.6 ft-lb/in <sup>2</sup>	Edgew 80*10*3 sp=62mm; ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Dart Drop, Total Energy	75.0 J	55.3 ft-lb	ASTM D3763
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	67.0 μm/m-°C	37.2 μin/in-°F	ASTM E 831
	@Temperature -40.0 - 95.0 °C	@Temperature -40.0 - 203 °F	
	67.0 μm/m-°C	37.2 μin/in-°F	

Thermal Properties	Metric @Temperature 23.0 - 80.0 °C	English @Temperature 73.4 - 177 °F	ISO 11359-2 Comments
CTE, linear, Transverse to Flow	80.0 µm/m-°C	44.4 µin/in-°F	ASTM E 831
	@Temperature -40.0 - 95.0 °C	@Temperature -40.0 - 203 °F	
	80.0 µm/m-°C	44.4 µin/in-°F	ISO 11359-2
	@Temperature 23.0 - 80.0 °C	@Temperature 73.4 - 176 °F	
Deflection Temperature at 1.8 MPa (264 psi)	116 °C	241 °F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	120 °C	248 °F	
Vicat Softening Point	@Thickness 3.20 mm	@Thickness 0.126 in	unannealed; ASTM D648
	138 °C	280 °F	
Vicat Softening Point	138 °C	280 °F	Rate A/50; ASTM D1525
	138 °C	280 °F	Rate B/50; ISO 306
	139 °C	282 °F	Rate B/120; ISO 306
Flammability, UL94	V-1	V-1	UL 94
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	V-0	V-0	UL 94
	@Thickness 1.80 mm	@Thickness 0.0709 in	
Oxygen Index	35 %	35 %	ISO 4589

Optical Properties	Metric	English	Comments
Haze	3.0 %	3.0 %	SABIC Method
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Transmission, Visible	84 %	84 %	2.0 mm; SABIC Method

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