SABIC Innovative Plastics Lexan® LUX9610 PC (Europe-Africa-Middle East)

Category : Polymer , Thermoplastic , Polycarbonate (PC)

Material Notes:

Lexan LUX9610 is a UV stabilized flame retardant transparent polycarbonate featuring non brominated and non chlorinated FR system with good flow and thin wall FR performance providing good colorstability under heat exposure. Developed for lightguide and LED applicatons. It meets WEEE/RoHS requirements for various applications.

Order this product through the following link:
http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Lexan-LUX9610-PC-Europe-Africa-Middle-East.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.20 g/cc	1.20 g/cc	ASTM D792
Density	1.20 g/cc	0.0434 lb/in³	ISO 1183
Moisture Absorption	0.150 %	0.150 %	23°C / 50% RH; ISO 62
Water Absorption at Saturation	0.35 %	0.35 %	ISO 62
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	7.0 g/10 min @Load 1.20 kg, Temperature 300 °C	7.0 g/10 min @Load 2.65 lb, Temperature 572 °F	ASTM D1238
Melt Index of Compound	7.0 g/10 min @Load 1.20 kg, Temperature 300 °C	7.0 g/10 min @Load 2.65 lb, Temperature 572 °F	MVR [cm^3/10 min]; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	58.0 MPa	8410 psi	50 mm/min; ISO 527
	65.0 MPa	9430 psi	Type I, 50 mm/min; ASTM D638
Tensile Strength, Yield	62.0 MPa	8990 psi	Type I, 50 mm/min; ASTM D638
	62.0 MPa	8990 psi	50 mm/min; ISO 527
Elongation at Break	77 %	77 %	50 mm/min; ISO 527
	85 %	85 %	Type I, 50 mm/min; ASTM D638
Elongation at Yield	6.0 %	6.0 %	Type I, 50 mm/min; ASTM D638
	6.0 %	6.0 %	50 mm/min; ISO 527
Tensile Modulus	2.23 GPa	323 ksi	1 mm/min; ISO 527

Mechanical Properties	Metric	English	Comments
	2.30 GPa	334 ksi	5 mm/min; ASTM D638
Flexural Strength	95.0 MPa	13800 psi	12.5 mm/min; ISO 178
Flexural Yield Strength	95.0 MPa	13800 psi	1.3 mm/min, 50 mm span; ASTM D790
Flexural Modulus	2.16 GPa	313 ksi	1.3 mm/min, 50 mm span; ASTM D790
	2.25 GPa	326 ksi	2 mm/min; ISO 178
Izod Impact, Notched	7.60 J/cm	14.2 ft-lb/in	ASTM D256
Izod Impact, Notched (ISO)	70.0 kJ/m²	33.3 ft-lb/in²	80*10*3; ISO 180/1A
	18.0 kJ/m² @Temperature -30.0 °C	8.57 ft-lb/in² @Temperature -22.0 °F	80*10*3; ISO 180/1A
Dart Drop, Total Energy	70.0 J @Temperature 23.0 °C	51.6 ft-lb @Temperature 73.4 °F	ASTM D3763

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	68.0 µm/m-°C @Temperature -40.0 - 40.0 °C	37.8 µin/in-°F @Temperature -40.0 - 104 °F	ASTM E 831
CTE, linear, Transverse to Flow	67.0 µm/m-°C @Temperature -40.0 - 40.0 °C	37.2 µin/in-°F @Temperature -40.0 - 104 °F	ASTM E 831
Deflection Temperature at 1.8 MPa (264 psi)	125 °C	257 °F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	125 °C @Thickness 3.20 mm	257 °F @Thickness 0.126 in	unannealed; ASTM D648
Vicat Softening Point	142 °C	288 °F	Rate B/50; ASTM D1525
	145 °C	293 °F	Rate B/120; ISO 306
UL RTI, Electrical	125 °C	257 °F	UL 746B
UL RTI, Mechanical with Impact	115 °C	239 °F	UL 746B
UL RTI, Mechanical without Impact	125 °C	257 °F	UL 746B
Flammability, UL94	V-0 @Thickness 1.50 mm	V-0 @Thickness 0.0591 in	UL 94
Glow Wire Test	850 °C	1560 °F	IEC 60695-2-13

Thermal Properties	Metric	English	Comments
	850 °C	1560 °F	IEC 60695-2-13
	960 °C @Thickness 1.00 mm	1760 °F @Thickness 0.0394 in	IEC 60695-2-12

Optical Properties	Metric	English	Comments
Refractive Index	1.586	1.586	ISO 489
Haze	1.0 % @Thickness 2.00 mm	1.0 % @Thickness 0.0787 in	SABIC Method
Transmission, Visible	>= 88 %	>= 88 %	2.54 mm, 420nm; SABIC Method
	>= 90 %	>= 90 %	2.54 mm; ASTM D1003

Electrical Properties	Metric	English	Comments
Comparative Tracking Index	175 - 250 V	175 - 250 V	UL 746A
Hot Wire Ignition, HWI	15 - 30 sec	15 - 30 sec	UL 746A
High Amp Arc Ignition, HAI	60 - 120 arcs	60 - 120 arcs	UL 746A

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

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