NORYL GTX™ LUX9612G resin

Polycarbonate

SABIC Innovative Plastics Europe

Message:

Lexan LUX9612G is a, low diffusive UV stabilized, MVR 7, flame retardant (V0@1.5mm) polycarbonate with a non brominated and non chlorinated FR system. Available in standard low diffusion effects providing good colorstability under heat exposure. Developed for diffusive LED applications.

General Information			
Additive	UV stabilizer Flame retardancy		
Features	Chlorine Free Good UV resistance Good color stability Bromine-free Flame retardancy		
Uses	LEDs		
RoHS Compliance	RoHS compliance		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.20	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	7.00	cm³/10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.50 - 0.70	%	Internal method
Water Absorption			
Saturated, 23°C	0.35	%	ISO 62
Equilibrium, 100°C	0.58	%	ASTM D570
Equilibrium, 23°C, 50% RH	0.15	%	ISO 62
Outdoor Suitability	f2		UL 746C
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	118		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	2300	MPa	ISO 527-2/1
Tensile Stress			ISO 527-2/50
Yield	63.0	MPa	ISO 527-2/50
Fracture	65.0	MPa	ISO 527-2/50
Tensile Strain			ISO 527-2/50
Yield	6.0	%	ISO 527-2/50
Fracture	100	%	ISO 527-2/50
Flexural Modulus [1]	2250	MPa	ISO 178

Flexural Stress	94.0	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Unnotched Impact Strength [2]			ISO 179/1eU
-30°C	No Break		ISO 179/1eU
23°C	No Break		ISO 179/1eU
Notched Izod Impact (23°C)	400	J/m	ASTM D256
Unnotched Izod Impact			
23°C	No Break		ASTM D4812, ISO 180/1U
-30°C [3]	No Break		ISO 180/1U
Multi-Axial Instrumented Impact Energy	130	J	ISO 6603-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature [4]			
0.45 MPa, unannealed, 64.0mm span	135	°C	ISO 75-2/Bf
1.8 MPa, unannealed, 64.0mm span	123	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	141	°C	ISO 306/B50
--	142	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
Linear thermal expansion coefficient			ASTM E831
Flow: -40 to 40°C	6.8E-5	cm/cm/°C	ASTM E831
Lateral: -40 to 40°C	6.7E-5	cm/cm/°C	ASTM E831
Specific Heat	1260	J/kg/°C	ASTM C351
Thermal Conductivity	0.20	W/m/K	ASTM C177
RTI Elec	125	°C	UL 746
RTI Imp	115	°C	UL 746
RTI	125	°C	UL 746
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Dielectric Strength (3.20 mm, in Air)	15	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
50 Hz	3.17		ASTM D150
60 Hz	3.17		ASTM D150
1 MHz	2.96		ASTM D150
Dissipation Factor			ASTM D150
50 Hz	9.0E-4		ASTM D150
60 Hz	9.0E-4		ASTM D150
1 MHz	0.010		ASTM D150
Comparative Tracking Index (CTI)	PLC 3		UL 746
High Amp Arc Ignition (HAI)	PLC 1		UL 746
Hot-wire Ignition (HWI)	PLC 3		UL 746
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94

0.30 mm	V-2		UL 94
1.5 mm	V-0		UL 94
Glow Wire Flammability Index			IEC 60695-2-12
0.8 mm	750	°C	IEC 60695-2-12
1.0 mm	960	°C	IEC 60695-2-12
1.5 mm	850	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			IEC 60695-2-13
1.0 mm	850	°C	IEC 60695-2-13
1.5 mm	850	°C	IEC 60695-2-13

Optical	Nominal Value	Test Method
Refractive Index	1.586	ISO 489

Injection	Nominal Value	Unit
Drying Temperature	120	°C
Drying Time	2.0 - 4.0	hr
Suggested Max Moisture	0.020	%
Hopper Temperature	60 - 80	°C
Rear Temperature	260 - 280	°C
Middle Temperature	270 - 290	°C
Front Temperature	280 - 300	°C
Nozzle Temperature	270 - 290	°C
Processing (Melt) Temp	280 - 300	°C
Mold Temperature	80 - 100	°C

NOTE	
1.	2.0 mm/min
2.	80*10*3 sp=62mm
3.	80*10*3
4.	80*10*4 mm

Recommended distributors for this material

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