

LEXAN™ LUX9612G resin

Polycarbonate

SABIC Innovative Plastics Europe

Message:

Lexan LUX9612G (EXRL0945) is a UV stabilized high viscosity, flame retardant polycarbonate featuring non brominated and non chlorinated FR system with diffusion effect and thin wall FR performance providing good colorstability under heat exposure. Developed for LED applications. It meets WEEE/RoHS requirements for various applications.

General Information			
Additive	UV stabilizer		
	Flame retardancy		
Features	Chlorine Free		
	Good UV resistance		
	Good color stability		
	Bromine-free		
	Viscosity, High		
	Flame retardancy		
Uses	LEDs		
Agency Ratings	EU 2002/96/EC (WEEE)		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	7.0	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	7.00	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.60 - 0.80	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	0.35	%	ISO 62
Equilibrium, 23°C, 50% RH	0.15	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2300	MPa	ASTM D638
--	2230	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	62.0	MPa	ASTM D638
Yield	62.0	MPa	ISO 527-2/50
Fracture ³	65.0	MPa	ASTM D638
Fracture	58.0	MPa	ISO 527-2/50
Tensile Elongation			

Yield ⁴	6.0	%	ASTM D638
Yield	6.0	%	ISO 527-2/50
Fracture ⁵	80	%	ASTM D638
Fracture	75	%	ISO 527-2/50
Flexural Modulus			
50.0mm span ⁶	2160	MPa	ASTM D790
-- ⁷	2250	MPa	ISO 178
Flexural Stress			
--	95.0	MPa	ISO 178
Yield, 50.0mm span ⁸	95.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C	400	J/m	ASTM D256
23°C ⁹	40	kJ/m ²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	70.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, unannealed, 64.0mm span ¹⁰	135	°C	ISO 75-2/Bf
1.8 MPa, unannealed, 3.20mm	123	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span ¹¹	123	°C	ISO 75-2/Af
Vicat Softening Temperature	140	°C	ASTM D1525 ¹²
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
RTI Elec	125	°C	UL 746
RTI Imp	115	°C	UL 746
RTI	125	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
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 (1.50 mm)	V-0		UL 94
Glow Wire Flammability Index (1.00 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			IEC 60695-2-13
1.00 mm	850	°C	IEC 60695-2-13
1.50 mm	850	°C	IEC 60695-2-13
Injection	Nominal Value	Unit	
Drying Temperature	120	°C	
Drying Time	2.0 - 4.0	hr	

Suggested Max Moisture	0.020	%
Hopper Temperature	60.0 - 80.0	°C
Rear Temperature	260 - 280	°C
Middle Temperature	270 - 290	°C
Front Temperature	280 - 310	°C
Nozzle Temperature	270 - 290	°C
Processing (Melt) Temp	280 - 310	°C
Mold Temperature	80.0 - 110	°C

NOTE		
1.	5.0 mm/min	
2.	Type 1, 50mm/min	
3.	Type 1, 50mm/min	
4.	Type 1, 50mm/min	
5.	Type 1, 50mm/min	
6.	1.3 mm/min	
7.	2.0 mm/min	
8.	1.3 mm/min	
9.	80*10*3	
10.	80*10*4 mm	
11.	80*10*4 mm	
12.	标准 B (120°C/h), 载荷2 (50N)	

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