

LEXAN™ LUX9130T resin

Polycarbonate

SABIC Innovative Plastics Asia Pacific

Message:

LUX9130T Polycarbonate (PC) resin is a non-filled, injection moldable grade. This non-chlorinated, non-brominated flame retardant PC has an UL-94 V0 rating at 1.5 mm / 5VA rating at 6.0mm and is UV stabilized providing additional weathering capability. LUX9130T is high transparency, extremely low haze and bubble free for thick part molding. LUX9130T is available in clear transparent and tinted color options that is an excellent candidate for a wide variety of applications.

General Information			
UL YellowCard	E207780-101299184		
Additive	UV Stabilizer		
Features	Bromine Free		
	Chlorine Free		
	Flame Retardant		
	Good Weather Resistance		
	High Clarity		
Uses	General Purpose		
	Thick-walled Parts		
Appearance	Clear/Transparent		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.19	g/cm ³	ASTM D792
--	1.20	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	18	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	17.0	cm ³ /10min	ISO 1133
Molding Shrinkage			Internal Method
Flow : 3.20 mm	0.45 to 0.65	%	
Across Flow : 3.20 mm	0.50 to 0.70	%	
Water Absorption			ISO 62
Saturation, 23°C	0.10	%	
Equilibrium, 23°C, 50% RH	0.010	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2380	MPa	ASTM D638
--	2400	MPa	ISO 527-2/1
Tensile Strength			

Yield ²	64.0	MPa	ASTM D638
Yield	64.0	MPa	ISO 527-2/50
Break ³	59.0	MPa	ASTM D638
Break	50.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁴	6.0	%	ASTM D638
Yield	6.0	%	ISO 527-2/50
Break ⁵	72	%	ASTM D638
Break	52	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span ⁶	2300	MPa	ASTM D790
-- ⁷	2420	MPa	ISO 178
Flexural Strength ⁸ (Yield, 50.0 mm Span)	98.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹			ISO 179/1eA
-30°C	9.0	kJ/m ²	
23°C	9.0	kJ/m ²	
Charpy Unnotched Impact Strength ¹⁰			ISO 179/1eU
-30°C	No Break		
23°C	No Break		
Notched Izod Impact			
-30°C	90	J/m	ASTM D256
23°C	100	J/m	ASTM D256
-30°C ¹¹	9.0	kJ/m ²	ISO 180/1A
23°C ¹²	9.0	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
-30°C	No Break		ASTM D4812
23°C	No Break		ASTM D4812
-30°C ¹³	130	kJ/m ²	ISO 180/1U
23°C ¹⁴	130	kJ/m ²	ISO 180/1U
Instrumented Dart Impact (23°C, Total Energy)	55.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	131	°C	ASTM D648
0.45 MPa, Unannealed, 100 mm Span ¹⁵	131	°C	ISO 75-2/Be
1.8 MPa, Unannealed, 3.20 mm	120	°C	ASTM D648
1.8 MPa, Unannealed, 100 mm Span ¹⁶	120	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	137	°C	ASTM D1525, ISO 306/B50 ¹⁷
--	139	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2

CLTE			
Flow : -40 to 40°C	7.1E-5	cm/cm/°C	ASTM E831
Flow : 23 to 80°C	7.4E-5	cm/cm/°C	ISO 11359-2
Transverse : -40 to 40°C	7.1E-5	cm/cm/°C	ASTM E831
Transverse : 23 to 80°C	8.0E-5	cm/cm/°C	ISO 11359-2
RTI Elec	115	°C	UL 746
RTI Imp	115	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Dielectric Constant (1.10 GHz)	2.81		ASTM ES7-83
Dissipation Factor (1.10 GHz)	5.8E-3		ASTM ES7-83
Comparative Tracking Index (CTI)	PLC 2		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.400 mm	V-2		
1.50 mm	V-0		
6.00 mm	5VA		
Glow Wire Flammability Index (1.50 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature (1.50 mm)	850	°C	IEC 60695-2-13
Optical	Nominal Value	Unit	Test Method
Transmittance			
1000 µm	> 90.5	%	Internal Method
2000 µm	> 90.0	%	Internal Method
3000 µm	> 89.5	%	Internal Method
6000 µm	> 88.0	%	ASTM D1003
Injection	Nominal Value	Unit	
Drying Temperature	121	°C	
Drying Time	3.0 to 4.0	hr	
Drying Time, Maximum	48	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 to 60	%	
Rear Temperature	266 to 288	°C	
Middle Temperature	277 to 299	°C	
Front Temperature	288 to 310	°C	
Nozzle Temperature	282 to 304	°C	
Processing (Melt) Temp	288 to 310	°C	
Mold Temperature	71.1 to 93.3	°C	
Back Pressure	0.345 to 0.689	MPa	
Screw Speed	40 to 70	rpm	
Vent Depth	0.025 to 0.076	mm	
NOTE			
1.	50 mm/min		
2.	Type I, 50 mm/min		

3.	Type I, 50 mm/min
4.	Type I, 50 mm/min
5.	Type I, 50 mm/min
6.	1.3 mm/min
7.	2.0 mm/min
8.	1.3 mm/min
9.	80*10*3 sp=62mm
10.	80*10*3 sp=62mm
11.	80*10*3
12.	80*10*3
13.	80*10*3
14.	80*10*3
15.	120*10*4 mm
16.	120*10*4 mm
17.	Rate B (120°C/h), Loading 2 (50 N)

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