

LEXAN™ EXL9330P resin

Polycarbonate

SABIC Innovative Plastics Asia Pacific

Message:

Opaque PC-Siloxane copolymer with excellent processability. Non-chlorinated, non-brominated flame retardant product in most colors. UV-stabilized. UL rated f1/V-0/5VA.

General Information			
Additive	UV Stabilizer		
Features	Bromine Free		
	Chlorine Free		
	Copolymer		
	Flame Retardant		
	Good Processability		
Appearance	Opaque		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.18	g/cm ³	ASTM D792
--	1.19	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	10	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	9.00	cm ³ /10min	ISO 1133
Molding Shrinkage			Internal Method
Flow : 3.20 mm	0.40 to 0.80	%	
Across Flow : 3.20 mm	0.40 to 0.80	%	
Water Absorption			ISO 62
Saturation, 23°C	0.35	%	
Equilibrium, 23°C, 50% RH	0.15	%	
Outdoor Suitability	f1		UL 746C
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness (H 358/30)	90.0	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2100	MPa	ASTM D638
--	2100	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	58.0	MPa	ASTM D638
Yield	55.0	MPa	ISO 527-2/50
Break ³	61.0	MPa	ASTM D638

Break	60.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁴	6.0	%	ASTM D638
Yield	6.0	%	ISO 527-2/50
Break ⁵	130	%	ASTM D638
Break	130	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span ⁶	2070	MPa	ASTM D790
-- ⁷	2200	MPa	ISO 178
Flexural Stress			
--	85.0	MPa	ISO 178
Yield, 50.0 mm Span ⁸	88.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹			ISO 179/1eA
-30°C	60	kJ/m ²	
23°C	75	kJ/m ²	
Charpy Unnotched Impact Strength ¹⁰			ISO 179/1eU
-30°C	No Break		
23°C	No Break		
Notched Izod Impact			
-50°C	590	J/m	ASTM D256
-30°C	680	J/m	ASTM D256
23°C	800	J/m	ASTM D256
23°C, 6.40 mm	640	J/m	ASTM D256
-30°C ¹¹	55	kJ/m ²	ISO 180/1A
-30°C ¹²	65	kJ/m ²	ISO 180/4A
23°C ¹³	70	kJ/m ²	ISO 180/1A
23°C ¹⁴	80	kJ/m ²	ISO 180/4A
Unnotched Izod Impact			
23°C ¹⁵	1100	J/m	Internal Method
-30°C ¹⁶	No Break		ISO 180/1U
23°C ¹⁷	No Break		ISO 180/1U
Instrumented Dart Impact (23°C, Total Energy)	52.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	134	°C	ASTM D648
0.45 MPa, Unannealed, 100 mm Span ¹⁸	135	°C	ISO 75-2/Be
1.8 MPa, Unannealed, 3.20 mm	120	°C	ASTM D648
1.8 MPa, Unannealed, 6.40 mm	124	°C	ASTM D648
1.8 MPa, Unannealed, 100 mm Span ¹⁹	124	°C	ISO 75-2/Ae
Vicat Softening Temperature			

--	142	°C	ASTM D1525, ISO 306/B120 13 ²⁰
--	140	°C	ISO 306/B50
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
CLTE			
Flow : -40 to 40°C	6.7E-5	cm/cm/°C	ASTM E831
Flow : 23 to 80°C	7.2E-5	cm/cm/°C	ISO 11359-2
Transverse : -40 to 40°C	6.7E-5	cm/cm/°C	ASTM E831
Transverse : 23 to 80°C	7.7E-5	cm/cm/°C	ISO 11359-2
RTI Elec	125	°C	UL 746
RTI Imp	115	°C	UL 746
RTI Str	120	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Dielectric Strength			
3.20 mm, in Oil	17	kV/mm	ASTM D149
3.20 mm, in Oil	16	kV/mm	IEC 60243-1
Dissipation Factor			
50 Hz	2.4E-3		ASTM D150
60 Hz	2.4E-3		ASTM D150
1 MHz	8.5E-3		ASTM D150, IEC 60250
50 Hz	1.0E-3		IEC 60250
60 Hz	1.0E-3		IEC 60250
Comparative Tracking Index (CTI)	PLC 3		UL 746
Comparative Tracking Index	225	V	IEC 60112
High Amp Arc Ignition (HAI)	PLC 0		UL 746
Hot-wire Ignition (HWI)	PLC 1		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.800 mm	V-1		
1.49 mm	V-0		
2.99 mm	5VA		
Glow Wire Flammability Index (1.00 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature (1.00 mm)	825	°C	IEC 60695-2-13
Oxygen Index	35	%	ISO 4589-2
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	271 to 293	°C
Middle Temperature	282 to 304	°C
Front Temperature	293 to 316	°C
Nozzle Temperature	288 to 310	°C
Processing (Melt) Temp	293 to 316	°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.	63.5*12.7*3.2
13.	80*10*3
14.	63.5*12.7*3.2
15.	Double-Gated
16.	80*10*3
17.	80*10*3
18.	120*10*4 mm
19.	120*10*4 mm
20.	Rate B (120°C/h), Loading 2 (50 N)

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