LEXAN™ EXL9132 resin

Polycarbonate

SABIC Innovative Plastics Asia Pacific

Message:

Opaque PC-Siloxane copolymer with excellent processability. Improved flow, low temperature ductility, UV stabilized. Non-chlorinated, non-brominated flame retardant product. UL rated V0/5VA.

General Information			
Additive	Flame Retardant		
Features	Bromine Free Chlorine Free Copolymer Flame Retardant Good Flow Good Processability		
Appearance	Opaque		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity			
--	1.18	g/cm³	ASTM D792
--	1.19	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	17	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	16.0	cm³/10min	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	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Ball Indentation Hardness (H 358/30)	95.0	MPa	ISO 2039-1
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
-- [1]	2270	MPa	ASTM D638
--	2200	MPa	ISO 527-2/1
Tensile Strength			
Yield [2]	58.1	MPa	ASTM D638
Yield	59.0	MPa	ISO 527-2/50
Break [3]	58.5	MPa	ASTM D638

Break	55.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield [4]	5.8	%	ASTM D638
Yield	5.0	%	ISO 527-2/50
Break [5]	100	%	ASTM D638
Break	100	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span [6]	2340	MPa	ASTM D790
-- [7]	2300	MPa	ISO 178
Flexural Stress			
--	88.0	MPa	ISO 178
Yield, 50.0 mm Span [8]	95.1	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength [9]			ISO 179/1eA
-30°C	25	kJ/m^2	
23°C	60	kJ/m^2	
Charpy Unnotched Impact Strength [10]			ISO 179/1eU
-30°C	No Break		
23°C	No Break		
Notched Izod Impact			
-30°C	560	J/m	ASTM D256
23°C	730	J/m	ASTM D256
-30°C [11]	20	kJ/m^2	ISO 180/1A
23°C [12]	55	kJ/m^2	ISO 180/1A
Unnotched Izod Impact Strength [13]			ISO 180/1U
-30°C	No Break		
23°C	No Break		
Instrumented Dart Impact (23°C, Total Energy)	67.9	J	ASTM D3763
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	136	°C	ASTM D648
0.45 MPa, Unannealed, 100 mm Span [14]	136	°C	ISO 75-2/Be
1.8 MPa, Unannealed, 3.20 mm	124	°C	ASTM D648
1.8 MPa, Unannealed, 100 mm Span [15]	124	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	143	°C	ASTM D1525, ISO 306/B50 11 [16]
--	144	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
CLTE			
Flow : -40 to 40°C	7.2E-5	cm/cm/°C	ASTM E831
Flow : 23 to 80°C	7.5E-5	cm/cm/°C	ISO 11359-2

Transverse : -40 to 40°C	7.2E-5	cm/cm/°C	ASTM E831
Transverse : 23 to 80°C	7.5E-5	cm/cm/°C	ISO 11359-2
RTI Elec	130	°C	UL 746
RTI Imp	50.0	°C	UL 746
RTI Str	50.0	°C	UL 746
Electrical	**Nominal Value**	**Unit**	**Test Method**
Electric Strength (3.20 mm, in Oil)	19	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
50 Hz	2.70		
60 Hz	2.70		
1 MHz	2.70		
Dissipation Factor			IEC 60250
50 Hz	4.0E-4		
60 Hz	4.0E-4		
1 MHz	0.010		
Comparative Tracking Index	175	V	IEC 60112
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
1.50 mm	V-0		
3.00 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	40	%	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	217 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	71.0 to 93.0	°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.	120*10*4 mm
15.	120*10*4 mm
16.	Rate B (120°C/h), Loading 2 (50 N)

Recommended distributors for this material

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