LEXAN™ BFL2015 resin

Polycarbonate

SABIC Innovative Plastics

Message:

Non-brominated, non-chlorinated flame retardant, glass reinforced PC. Opaque colors only

General Information	
Filler / Reinforcement	Glass Fiber
Additive	Flame Retardant
Features	Bromine Free Chlorine Free Flame Retardant
Appearance	Colors Available Opaque
Processing Method	Injection Molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.23	g/cm³	ASTM D792
--	1.30	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	6.5	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	6.00	cm³/10min	ISO 1133
Molding Shrinkage			Internal Method
Flow [1]	0.20 to 0.50	%	
Flow : 3.20 mm	0.20 to 0.50	%	
Across Flow : 3.20 mm	0.20 to 0.50	%	
Water Absorption			ISO 62
Saturation, 23°C	0.35	%	
Equilibrium, 23°C, 50% RH	0.15	%	

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- [2]	5330	MPa	ASTM D638
--	4960	MPa	ISO 527-2/1
Tensile Strength			
Yield [3]	92.0	MPa	ASTM D638
Yield	103	MPa	ISO 527-2/50
Break [4]	91.0	MPa	ASTM D638
Break	101	MPa	ISO 527-2/50

Tensile Elongation			
Yield [5]	3.5	%	ASTM D638
Yield	3.7	%	ISO 527-2/50
Break [6]	4.0	%	ASTM D638
Break	4.4	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span [7]	4600	MPa	ASTM D790
-- [8]	4290	MPa	ISO 178
Flexural Stress			
--	150	MPa	ISO 178
Yield, 50.0 mm Span [9]	156	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			
-30°C [10]	6.0	kJ/m²	ISO 179/1eA
-30°C	9.0	kJ/m²	ISO 179/2C
23°C [11]	8.0	kJ/m²	ISO 179/1eA
23°C	12	kJ/m²	ISO 179/2C
Charpy Unnotched Impact Strength			
-30°C [12]	100	kJ/m²	ISO 179/1eU
-30°C	76	kJ/m²	ISO 179/2U
23°C [13]	100	kJ/m²	ISO 179/1eU
23°C	68	kJ/m²	ISO 179/2U
Notched Izod Impact			
23°C	78	J/m	ASTM D256
-30°C [14]	7.0	kJ/m²	ISO 180/1A
23°C [15]	8.0	kJ/m²	ISO 180/1A
Unnotched Izod Impact Strength [16]			ISO 180/1U
-30°C	80	kJ/m²	
23°C	80	kJ/m²	
Instrumented Dart Impact (23°C, Total Energy)	61.0	J	ASTM D3763
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	145	°C	ASTM D648
1.8 MPa, Unannealed, 3.20 mm	141	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span [17]	132	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	148	°C	ASTM D1525 [18]
--	150	°C	ISO 306/B50
--	151	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
CLTE			

Flow : -30 to 30°C	4.0E-5	cm/cm/°C	ASTM D696
Flow : 23 to 80°C	4.0E-5	cm/cm/°C	ISO 11359-2
Transverse : -30 to 30°C	4.0E-5	cm/cm/°C	ASTM D696
Transverse : 23 to 80°C	4.0E-5	cm/cm/°C	ISO 11359-2
RTI Elec	80.0	°C	UL 746
RTI Imp	80.0	°C	UL 746
RTI Str	80.0	°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 (1.60 mm, in Oil)	20	kV/mm	ASTM D149
Relative Permittivity			IEC 60250
50 Hz	3.20		
60 Hz	3.20		
1 MHz	3.10		
Dissipation Factor			IEC 60250
50 Hz	0.020		
60 Hz	0.020		
1 MHz	0.010		
Comparative Tracking Index	150	V	IEC 60112
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 (1.00 mm)	825	°C	IEC 60695-2-13
Oxygen Index	38	%	ISO 4589-2
Injection	**Nominal Value**	**Unit**	
Drying Temperature	120	°C	
Drying Time	2.0 to 4.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	60.0 to 80.0	°C	
Rear Temperature	270 to 300	°C	
Middle Temperature	280 to 310	°C	
Front Temperature	290 to 320	°C	
Nozzle Temperature	280 to 310	°C	
Processing (Melt) Temp	290 to 320	°C	
Mold Temperature	80.0 to 120	°C	
NOTE			
1.	Tensile Bar		
2.	5.0 mm/min		
3.	Type I, 50 mm/min		
4.	Type I, 50 mm/min		
5.	Type I, 50 mm/min		

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

Recommended distributors for this material

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