LEXAN™ FXE1414L resin

Polycarbonate

SABIC Innovative Plastics

Message:

Opaque EXL, UV-Stabilized & light shielding capability (Wall thickness >0.8mm), for portable electronics device enclosure application. Only available in white, grey and limited pastel colors. Consult CIC or PM for color availability & limitation.

General Information	
Additive	UV Stabilizer
Uses	Electrical Housing
Appearance	Colors Available
	Grey
	Opaque
	White
Processing Method	Injection Molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.28	g/cm³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	11	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	10.0	cm³/10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.40 to 0.80	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	0.17	%	
Equilibrium, 23°C, 50% RH	0.070	%	

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- [1]	2040	MPa	ASTM D638
--	2010	MPa	ISO 527-2/1
Tensile Strength			
Yield [2]	52.0	MPa	ASTM D638
Yield	52.0	MPa	ISO 527-2/50
Break [3]	54.0	MPa	ASTM D638
Break	47.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield [4]	5.0	%	ASTM D638
Yield	5.0	%	ISO 527-2/50
Break [5]	84	%	ASTM D638
Break	75	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span [6]	2050	MPa	ASTM D790

-- [7]	2110	MPa	ISO 178
Flexural Stress			
--	83.0	MPa	ISO 178
Yield, 50.0 mm Span [8]	86.0	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength [9] (23°C)	55	kJ/m²	ISO 179/1eA
Notched Izod Impact			
-30°C	640	J/m	ASTM D256
23°C	770	J/m	ASTM D256
-30°C [10]	46	kJ/m²	ISO 180/1A
23°C [11]	56	kJ/m²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	68.0	J	ASTM D3763
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
1.8 MPa, Unannealed, 3.20 mm	121	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span [12]	118	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	138	°C	ASTM D1525, ISO 306/B50 10 [13]
--	146	°C	ISO 306/B120
CLTE			
Flow : -40 to 40°C	7.0E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Transverse : -40 to 40°C	6.7E-5	cm/cm/°C	ASTM E831
Transverse : -40 to 40°C	8.2E-5	cm/cm/°C	ISO 11359-2
Flammability	**Nominal Value**		**Test Method**
Flame Rating (0.400 mm)	HB		UL 94
Injection	**Nominal Value**	**Unit**	
Drying Temperature	120	°C	
Drying Time	3.0 to 4.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	60.0 to 80.0	°C	
Rear Temperature	260 to 280	°C	
Middle Temperature	280 to 305	°C	
Front Temperature	295 to 315	°C	
Nozzle Temperature	290 to 310	°C	
Processing (Melt) Temp	295 to 315	°C	
Mold Temperature	70.0 to 95.0	°C	
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*4 sp=62mm
10.	80*10*4
11.	80*10*4
12.	80*10*4 mm
13.	Rate B (120°C/h), Loading 2 (50 N)

Recommended distributors for this material

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