

LEXAN™ FXE154 resin

Polycarbonate

SABIC Innovative Plastics

Message:

FDA compliant (color limited) PC. 2.5 MFR. Potable water/extrusion blowmoldable. ILLUMINATE special effects (fluorescent/edge glow colors).

General Information			
Features	Luminescence performance in darkness		
Uses	Potable water application		
Agency Ratings	FDA not rated		
Processing Method	Extrusion blow molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			ASTM D792
--	1.20	g/cm ³	ASTM D792
--	1.19	g/cm ³	ASTM D792
Specific Volume	0.835	cm ³ /g	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	2.5	g/10 min	ASTM D1238
Molding Shrinkage - Flow (3.20 mm)	0.50 - 0.70	%	Internal method
Water Absorption			ASTM D570
24 hr	0.15	%	ASTM D570
Equilibrium, 23°C	0.35	%	ASTM D570
Equilibrium, 100°C	0.58	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	118		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ¹			ASTM D638
Yield	62.1	MPa	ASTM D638
Fracture	65.5	MPa	ASTM D638
Tensile Elongation ²			ASTM D638
Yield	7.0	%	ASTM D638
Fracture	110	%	ASTM D638
Flexural Modulus ³ (50.0 mm Span)	2340	MPa	ASTM D790
Flexural Strength ⁴ (Yield, 50.0 mm Span)	93.1	MPa	ASTM D790
Taber Abrasion Resistance (1000 Cycles, 1000 g, CS-17 Wheel)	10.0	mg	ASTM D1044
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	750	J/m	ASTM D256
Unnotched Izod Impact (23°C)	3200	J/m	ASTM D4812
Dart Drop Impact (23°C)	169	J	ASTM D3029
Thermal	Nominal Value	Unit	Test Method

Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 6.40mm	138	°C	ASTM D648
1.8 MPa, unannealed, 6.40mm	132	°C	ASTM D648
Vicat Softening Temperature	157	°C	ASTM D1525 ⁵
CLTE - Flow (-40 to 95°C)	6.8E-5	cm/cm/°C	ASTM E831
Specific Heat	1260	J/kg/°C	ASTM C351
Thermal Conductivity	0.19	W/m/K	ASTM C177
Optical	Nominal Value	Unit	Test Method
Refractive Index	1.586		ASTM D542
Transmittance (2540 μm)	88.0	%	ASTM D1003
Haze (2540 μm)	1.0	%	ASTM D1003
Extrusion	Nominal Value	Unit	
Drying Temperature	116 - 121	°C	
Drying Time	4.0 - 6.0	hr	
Suggested Max Moisture	0.020	%	
Cylinder Zone 1 Temp.	260 - 274	°C	
Cylinder Zone 2 Temp.	260 - 274	°C	
Cylinder Zone 3 Temp.	260 - 274	°C	
Cylinder Zone 4 Temp.	260 - 274	°C	
Cylinder Zone 5 Temp.	260 - 274	°C	
Adapter Temperature	260 - 274	°C	
Die Temperature	268 - 279	°C	
Extrusion instructions			
Drying Time (Cumulative): 48 hrsHead - Zone 6 - Top Temperature: 260 - 274 °CHead - Zone 7 - Bottom Temperature: 260 - 274 °CMelt Temperature (Parison): 266 - 277 °CMinimum Moisture Content: .01 %Mold Temperature: 66 - 93 °CScrew Speed: 15 - 50 rpm			
NOTE			
1.	Type 1, 50mm/min		
2.	Type 1, 50mm/min		
3.	1.3 mm/min		
4.	1.3 mm/min		
5.	标准 B (120°C/h), 载荷2 (50N)		

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