

LEXAN™ BFL4000U resin

Polycarbonate
SABIC Innovative Plastics

Message:
LEXAN BFL4000U Polycarbonate resin is an injection moldable grade. It contains non-brominated, non-chlorinated flame retardant systems with UL-94 V0 rating and good impact/flow balance. Designed for high light reflectance and light shielding applications with good UV weathering capability.

General Information			
Additive	Flame Retardant		
Features	Bromine Free		
	Chlorine Free		
	Flame Retardant		
	Good Flow		
	Good Impact Resistance		
	Good UV Resistance		
	Good Weather Resistance		
Uses	Lighting Diffusers		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.38	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	24	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	22.0	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.50 to 0.70	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	0.35	%	
Equilibrium, 23°C, 50% RH	0.15	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2240	MPa	ASTM D638
--	2040	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	54.0	MPa	ASTM D638
Yield	50.0	MPa	ISO 527-2/5
Break ³	47.0	MPa	ASTM D638
Break	44.0	MPa	ISO 527-2/5
Tensile Elongation			
Yield ⁴	5.0	%	ASTM D638
Yield	6.0	%	ISO 527-2/5
Break ⁵	56	%	ASTM D638

Break	74	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ⁶	2050	MPa	ASTM D790
-- ⁷	2170	MPa	ISO 178
Flexural Stress			
--	83.0	MPa	ISO 178
Yield, 50.0 mm Span ⁸	90.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹ (23°C)	30	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	240	J/m	ASTM D256
23°C	470	J/m	ASTM D256
-30°C ¹⁰	20	kJ/m ²	ISO 180/1A
23°C ¹¹	30	kJ/m ²	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			
0.45 MPa, Unannealed, 3.20 mm	131	°C	ASTM D648
0.45 MPa, Unannealed, 6.40 mm	134	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ¹²	130	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 6.40 mm	124	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹³	115	°C	ISO 75-2/Af
1.8 MPa, Annealed, 3.20 mm	115	°C	ASTM D648
Vicat Softening Temperature			
--	136	°C	ASTM D1525 ¹⁴
--	137	°C	ISO 306/B50
--	139	°C	ISO 306/B120
CLTE			ASTM E831, ISO 11359-2
Flow : -40 to 40°C	7.5E-5	cm/cm/°C	
Transverse : -40 to 40°C	7.5E-5	cm/cm/°C	
Flammability	Nominal Value		Test Method
Flame Rating (1.50 mm)	V-0		UL 94
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	249 to 271	°C	
Middle Temperature	260 to 282	°C	
Front Temperature	271 to 293	°C	

Nozzle Temperature	266 to 288	°C
Processing (Melt) Temp	271 to 293	°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.	5.0 mm/min
2.	Type I, 5.0 mm/min
3.	Type I, 5.0 mm/min
4.	Type I, 5.0 mm/min
5.	Type I, 5.0 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.	80*10*4 mm
14.	Rate B (120°C/h), Loading 2 (50 N)

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China



WECHAT