

LEXAN™ FXD9810 resin

Polycarbonate

SABIC Innovative Plastics

Message:

Non-chlorinated, non-brominated Flame retardant PC-siloxane copolymer blend. Excellent processability, super high flow, good impact, UL rated V-0. Limited translucent colors.

General Information			
Features	Bromine Free		
	Chlorine Free		
	Copolymer		
	Flame Retardant		
	Good Impact Resistance		
	Good Processability		
	High Flow		
Appearance	Translucent		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.19	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	30	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	29.0	cm ³ /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	0.26	%	
Equilibrium, 23°C, 50% RH	0.080	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2200	MPa	ASTM D638
--	2150	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	55.0	MPa	ASTM D638
Yield	56.0	MPa	ISO 527-2/50
Break ³	50.0	MPa	ASTM D638
Break	49.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁴	5.6	%	ASTM D638
Yield	5.6	%	ISO 527-2/50

Break ⁵	100	%	ASTM D638
Break	95	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span ⁶	2100	MPa	ASTM D790
-- ⁷	2250	MPa	ISO 178
Flexural Stress			
--	91.0	MPa	ISO 178
Yield, 50.0 mm Span ⁸	94.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹ (23°C)	49	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	220	J/m	ASTM D256
23°C	690	J/m	ASTM D256
-30°C ¹⁰	19	kJ/m ²	ISO 180/1A
23°C ¹¹	40	kJ/m ²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	63.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed, 3.20 mm)	118	°C	ASTM D648
Vicat Softening Temperature			
--	136	°C	ASTM D1525 ¹²
--	137	°C	ISO 306/B50
--	138	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
CLTE			
Flow : -40 to 40°C	7.1E-5	cm/cm/°C	ASTM E831
Flow : 23 to 80°C	6.9E-5	cm/cm/°C	ISO 11359-2
Transverse : -40 to 40°C	7.0E-5	cm/cm/°C	ASTM E831
Transverse : 23 to 80°C	6.8E-5	cm/cm/°C	ISO 11359-2
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.00 mm	V-1		
1.20 mm	V-0		
Glow Wire Flammability Index (1.00 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature (1.00 mm)	875	°C	IEC 60695-2-13
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.	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.	Rate B (120°C/h), Loading 2 (50 N)

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