

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			
UL YellowCard	E207780-592770		
Features	Chlorine Free		
	Copolymer		
	Impact resistance, good		
	Workability, good		
	High liquidity		
	Bromine-free		
	Flame retardancy		
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: 3.20mm	0.40 - 0.80	%	Internal method
Transverse flow: 3.20mm	0.40 - 0.80	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	0.26	%	ISO 62
Equilibrium, 23°C, 50% RH	0.080	%	ISO 62
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
Fracture ³	50.0	MPa	ASTM D638
Fracture	49.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁴	5.6	%	ASTM D638

Yield	5.6	%	ISO 527-2/50
Fracture ⁵	100	%	ASTM D638
Fracture	95	%	ISO 527-2/50
Flexural Modulus			
50.0mm span ⁶	2100	MPa	ASTM D790
-- ⁷	2250	MPa	ISO 178
Flexural Stress			
--	91.0	MPa	ISO 178
Yield, 50.0mm 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
Linear thermal expansion coefficient			
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
Lateral: -40 to 40°C	7.0E-5	cm/cm/°C	ASTM E831
Lateral: 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		UL 94
1.20 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)	875	°C	IEC 60695-2-13
Injection	Nominal Value	Unit	
Drying Temperature	121	°C	
Drying Time	3.0 - 4.0	hr	
Drying Time, Maximum	48	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 - 60	%	

Rear Temperature	249 - 271	°C
Middle Temperature	260 - 282	°C
Front Temperature	271 - 293	°C
Nozzle Temperature	266 - 288	°C
Processing (Melt) Temp	271 - 293	°C
Mold Temperature	71.1 - 93.3	°C
Back Pressure	0.345 - 0.689	MPa
Screw Speed	40 - 70	rpm
Vent Depth	0.025 - 0.076	mm

NOTE

1.	50 mm/min
2.	Type 1, 50mm/min
3.	Type 1, 50mm/min
4.	Type 1, 50mm/min
5.	Type 1, 50mm/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.	标准 B (120°C/h), 载荷2 (50N)

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