

LEXAN™ FL930 resin

Polycarbonate

SABIC Innovative Plastics

Message:

Various weight reductions at 0.250" (6.35 mm) wall, 30% GR. Superior flex strength/modulus, good tensile strength. V-0/5VA at 0.250" (6.35 mm).

General Information			
UL YellowCard	E45587-237014		
Filler / Reinforcement	Glass fiber reinforced material, 30% filler by weight		
Features	High tensile strength		
	Foamable property		
	Heat resistance, high		
Processing Method	Foam treatment		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			ASTM D792
-- ¹	1.29	g/cm ³	ASTM D792
--	1.43	g/cm ³	ASTM D792
Molding Shrinkage - Flow (6.40 mm)	0.20 - 0.40	%	Internal method
Water Absorption			ASTM D570
24 hr	0.12	%	ASTM D570
Equilibrium, 23°C	0.26	%	ASTM D570
Foam - Physical ²	10	%	Internal method
Foam - Mechanical ³	10	%	Internal method
Foam - Impact ⁴	10	%	Internal method
Foam - Thermal ⁵	10	%	Internal method
Foam - Electrical ⁶	20	%	Internal method
Foam - Flame Class Minimum Density	900	kg/m ³	Internal method
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (6.40 mm)	6930	MPa	ASTM D638
Tensile Strength (Yield, 6.35 mm)	72.4	MPa	ASTM D638
Tensile Elongation (Break, 6.35 mm)	3.0	%	ASTM D638
Flexural Modulus (6.40 mm)	6890	MPa	ASTM D790
Flexural Strength (Yield, 6.40 mm)	128	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Unnotched Izod Impact (23°C)	480	J/m	ASTM D4812
Dart Drop Impact (23°C)	40.7	J	Internal method
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 6.40mm	143	°C	ASTM D648

1.8 MPa, unannealed, 6.40mm	139	°C	ASTM D648
CLTE - Flow (-40 to 95°C)	2.2E-5	cm/cm/°C	ASTM E831
Specific Heat	1050	J/kg/°C	ASTM C351
Thermal Conductivity	0.16	W/m/K	ASTM C177
RTI Elec	110	°C	UL 746
RTI Imp	110	°C	UL 746
RTI	110	°C	UL 746

Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.1E+17	ohms	ASTM D257
Volume Resistivity	2.4E+17	ohms·cm	ASTM D257
Dielectric Constant			ASTM D150
100 Hz	2.70		ASTM D150
1 MHz	2.61		ASTM D150
Dissipation Factor			ASTM D150
100 Hz	3.4E-3		ASTM D150
1 MHz	7.5E-3		ASTM D150
Arc Resistance ⁷	PLC 7		ASTM D495
Comparative Tracking Index (CTI)	PLC 4		UL 746
High Amp Arc Ignition (HAI)	PLC 4		UL 746
High Voltage Arc Tracking Rate (HVTR)	PLC 3		UL 746
Hot-wire Ignition (HWI)	PLC 1		UL 746

Flammability	Nominal Value	Unit	Test Method
	V-0		

Flame Rating (5.99 mm)	5VA		UL 94
Oxygen Index	40	%	ASTM D2863

Additional Information

Structural Foam Molding - Blowing Agent, Chemical System: FLC95Structural Foam Molding - Blowing Agent, Physical System: NitrogenStructural Foam Molding - Concentration Range (Blowing Agent): 3 - 5 %Structural Foam Molding - Drying Temperature (Blowing Agent): 104 °CStructural Foam Molding - Drying Temperature (Resin): 121 °CStructural Foam Molding - Drying Time (Blowing Agent): 4 hrsStructural Foam Molding - Drying Time (Resin): 3 - 4 hrsStructural Foam Molding - Drying Time (Resin, Cumulative): 48 hrsStructural Foam Molding - Front Temperature: 293 - 310 °CStructural Foam Molding - Melt Temperature: 288 - 316 °CStructural Foam Molding - Middle Temperature: 293 - 310 °CStructural Foam Molding - Mold Temperature: 71 - 93 °CStructural Foam Molding - Nozzle Temperature: 271 - 293 °CStructural Foam Molding - Rear Temperature: 254 - 266 °CStructural Foam Molding - Recommended Concentration (Blowing Agent): 1.5 %

NOTE

1.	Foam molded
2.	6.4 mm wt reduction
3.	6.4 mm wt reduction
4.	6.4 mm wt reduction
5.	6.4 mm wt reduction
6.	6.4 mm wt reduction
7.	Tungsten electrode

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