

LEXAN™ FL920 resin

Polycarbonate

SABIC Innovative Plastics

Message:

Various weight reductions at .250" (6.35 mm) wall, 20% GR. Excellent flex mod, high tensile strength/heat resistance. V-0/5V at .250" (6.35mm).

General Information			
UL YellowCard	E121562-220931		
Filler / Reinforcement	Glass fiber reinforced material, 20% 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	1.19	g/cm ³	ASTM D792
--	1.32	g/cm ³	ASTM D792
Molding Shrinkage - Flow (6.40 mm)	0.30 - 0.50	%	Internal method
Water Absorption			ASTM D570
24 hr	0.14	%	ASTM D570
Equilibrium, 23°C	0.30	%	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	850	kg/m ³	Internal method
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (6.40 mm)	4270	MPa	ASTM D638
Tensile Strength (Yield, 6.35 mm)	58.6	MPa	ASTM D638
Tensile Elongation (Break, 6.35 mm)	3.6	%	ASTM D638
Flexural Modulus (6.40 mm)	5140	MPa	ASTM D790
Flexural Strength (Yield, 6.40 mm)	107	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Unnotched Izod Impact (23°C)	430	J/m	ASTM D4812
Dart Drop Impact (23°C)	43.4	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	137	°C	ASTM D648
CLTE - Flow (-40 to 95°C)	2.7E-5	cm/cm/°C	ASTM E831
Specific Heat	1170	J/kg/°C	ASTM C351
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	2.5E+17	ohms·cm	ASTM D257
Dielectric Constant			ASTM D150
100 Hz	2.52		ASTM D150
1 MHz	2.50		ASTM D150
Dissipation Factor			ASTM D150
100 Hz	8.0E-4		ASTM D150
1 MHz	5.2E-3		ASTM D150
Comparative Tracking Index (CTI)	PLC 3		UL 746
High Amp Arc Ignition (HAI)	PLC 2		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

Additional Information

Structural Foam Molding - Blowing Agent, Chemical System: FLC95
Structural Foam Molding - Blowing Agent, Physical System: Nitrogen
Structural Foam Molding - Concentration Range (Blowing Agent): 3 - 5 %
Structural Foam Molding - Drying Temperature (Blowing Agent): 104 °C
Structural Foam Molding - Drying Temperature (Resin): 121 °C
Structural Foam Molding - Drying Time (Blowing Agent): 4 hrs
Structural Foam Molding - Drying Time (Resin): 3 - 4 hrs
Structural Foam Molding - Drying Time (Resin, Cumulative): 48 hrs
Structural Foam Molding - Front Temperature: 293 - 310 °C
Structural Foam Molding - Melt Temperature: 288 - 316 °C
Structural Foam Molding - Middle Temperature: 293 - 310 °C
Structural Foam Molding - Mold Temperature: 71 - 93 °C
Structural Foam Molding - Nozzle Temperature: 271 - 293 °C
Structural Foam Molding - Rear Temperature: 254 - 266 °C
Structural Foam Molding - Recommended Concentration (Blowing Agent): 1.5 %

NOTE

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|----|---------------------|
| 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 |

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