



LEXAN™ Resin FL900S

Europe-Africa-Middle East: COMMERCIAL

Foamable Lexan® FL900S polycarbonate resin is an ideal choice for structural components where load bearing capability at elevated temperature is a key requirement. It exhibits outstanding impact strength, high heat resistance, flexural characteristics, creep resistance and processability. In addition, it is an excellent alternative to metal for large components with broad application potential in the appliance, automotive, telecommunications, material, handling and business machine industries. The material contains 5% glass fiber and combines rigidity, impact strength and toughness with UL 94 V-0 and 5V listings.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, break, 5 mm/min	42	MPa	ISO 527
Tensile Strain, break, 5 mm/min	5	%	ISO 527
Tensile Modulus, 1 mm/min	2000	MPa	ISO 527
Flexural Stress, break, 2 mm/min	80	MPa	ISO 178
Flexural Modulus, 2 mm/min	2400	MPa	ISO 178
IMPACT			
Gardner Impact (GE)	509	cm-kgf	SABIC Method
THERMAL			
Specific Heat	0.28	J/g-°C	ASTM C 351
Thermal Conductivity	0.15	W/m-°C	ISO 8302
CTE, 23°C to 80°C, flow	3.5E-05	1/°C	ISO 11359-2
Ball Pressure Test, 75°C +/- 2°C	PASSES	-	IEC 60695-10-2
Ball Pressure Test, 125°C +/- 2°C	PASSES	-	IEC 60695-10-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	128	°C	ISO 75/Af
Relative Temp Index, Elec	80	°C	UL 746B
Relative Temp Index, Mech w/impact	80	°C	UL 746B
Relative Temp Index, Mech w/o impact	80	°C	UL 746B
PHYSICAL			
Specific Gravity	0.95	-	ASTM D 792
Filler Content	5	%	ASTM D 229
Water Absorption, 24 hours	0.15	%	ASTM D 570
Mold Shrinkage on Tensile Bar, flow (2) (5)	0.5 - 0.7	%	SABIC Method
Water Absorption, (23°C/sat)	0.35	%	ISO 62
ELECTRICAL			
Dielectric Strength, in oil, 0.8 mm	35	kV/mm	ASTM D 149



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
ELECTRICAL			
Dielectric Strength, in oil, 1.6 mm	27	kV/mm	ASTM D 149
Dielectric Strength, in oil, 3.2 mm	17	kV/mm	ASTM D 149
Relative Permittivity, 100 Hz	2.4	-	IEC 60250
Relative Permittivity, 1 MHz	2.3	-	IEC 60250
Dissipation Factor, 100 Hz	0.002	-	IEC 60250
Dissipation Factor, 1 MHz	0.01	-	IEC 60250
FLAME CHARACTERISTICS			
UL Recognized, 94V-0 Flame Class Rating (3)	3	mm	UL 94
UL Recognized, 94-5VA Rating (3)	5	mm	UL 94
Oxygen Index (LOI)	35	%	ISO 4589



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	120	°C
Drying Time	2 - 4	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	290 - 320	°C
Nozzle Temperature	290 - 320	°C
Front - Zone 3 Temperature	290 - 320	°C
Middle - Zone 2 Temperature	280 - 310	°C
Rear - Zone 1 Temperature	265 - 295	°C
Hopper Temperature	60 - 80	°C
Mold Temperature	65 - 95	°C



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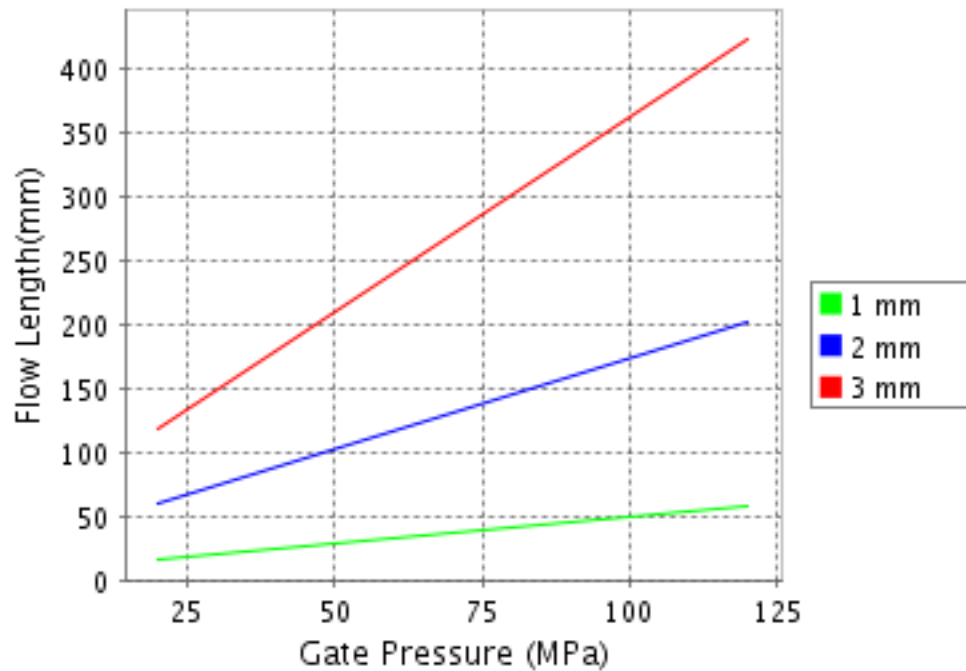
CALCULATED FLOW LENGTH INDICATION

Moldflow® Radial Flow Analysis

LEXAN® FL900S

Melt Temperature : 305°C

Mold Temperature : 75°C



Note: Technical support is recommended if Gate Pressure is greater than 80 MPa. Contact your local representative.

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