



LEXAN™ Resin FL900

Americas: COMMERCIAL

LEXAN resin FL900 is a Br- & Cl-free flame retardant grade that can be foamed for weight reductions. UL-94 V1 listed at 3.9mm together with good stiffness, heat, creep and impact performance make it suitable for various applications.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
FOAM - MECHANICAL 6.4 mm Wt Reduction	10	%	-
Tensile Stress, yield, 6.35 mm	510	kgf/cm ²	ASTM D 638
Tensile Strain, break, 6.35 mm	6.2	%	ASTM D 638
Tensile Modulus, 6.4 mm	24900	kgf/cm ²	ASTM D 638
Flexural Stress, yield, 6.4 mm	910	kgf/cm ²	ASTM D 790
Flexural Modulus, 6.4 mm	28400	kgf/cm ²	ASTM D 790
IMPACT			
FOAM - IMPACT 6.4 mm Wt Reduction	10	%	-
Izod Impact, unnotched, 23°C	76	cm-kgf/cm	ASTM D 4812
Falling Dart Impact, 23°C	525	cm-kgf	SABIC Method
THERMAL			
FOAM - THERMAL 6.4mm Wt Reduction	10	%	-
HDT, 0.45 MPa, 6.4 mm, unannealed	137	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	126	°C	ASTM D 648
CTE, -40°C to 95°C, flow	5.04E-05	1/°C	ASTM E 831
Specific Heat	1.17	J/g-°C	ASTM C 351
Thermal Conductivity	0.15	W/m-°C	ASTM C 177
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			
FOAM - PHYSICAL 6.4mm Wt Reduction	10	%	-
Specific Gravity	1.25	-	ASTM D 792
Specific Gravity, foam molded	1.13	-	ASTM D 792



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
PHYSICAL			
Water Absorption, 24 hours	0.16	%	ASTM D 570
Water Absorption, equilibrium, 23C	0.35	%	ASTM D 570
Mold Shrinkage, flow, 6.4 mm (5)	0.5 - 0.7	%	SABIC Method
ELECTRICAL			
FOAM - ELECTRICAL 6.4 mm Wt Reduction	20	%	-
Volume Resistivity	2.5E+17	Ohm-cm	ASTM D 257
Surface Resistivity	>1.1E+17	Ohm	ASTM D 257
Relative Permittivity, 100 Hz	2.22	-	ASTM D 150
Relative Permittivity, 1 MHz	2.12	-	ASTM D 150
Dissipation Factor, 100 Hz	0.0012	-	ASTM D 150
Dissipation Factor, 1 MHz	0.0061	-	ASTM D 150
Arc Resistance, Tungsten {PLC}	7	PLC Code	ASTM D 495
High Voltage Arc Track Rate {PLC}	4	PLC Code	UL 746A
Comparative Tracking Index (UL) {PLC}	3	PLC Code	UL 746A
FLAME CHARACTERISTICS			
FOAM - Flame Class Minimum Density	0.75	g/cm ³	-
UL Recognized, 94V-2 Flame Class Rating (3)	1.47	mm	UL 94
UL Recognized, 94V-1 Flame Class Rating (3)	3.91	mm	UL 94
UL Recognized, 94V-0 Flame Class Rating (3)	5.99	mm	UL 94
UL Recognized, 94-5VA Rating (3)	5.99	mm	UL 94
Oxygen Index (LOI)	40.4	%	ASTM D 2863
Radiant Panel Listing	YES	-	UL Tested
UV-light, water exposure/immersion	F2	-	UL 746C



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Structural Foam Molding		
Blowing Agent, Physical System	Nitrogen	-
Blowing Agent, Chemical System	FLC95	-
Drying Time (Blowing Agent)	4	hrs
Drying Temperature (Blowing Agent)	105	°C
Concentration Range (Blowing Agent)	3 - 5	%
Recommended Concentration (Blowing Agent)	1.5	%
Drying Temperature (Resin)	120	°C
Drying Time (Resin)	3 - 4	hrs
Drying Time (Resin, Cumulative)	48	hrs
Melt Temperature	290 - 315	°C
Nozzle Temperature	270 - 295	°C
Front Temperature	295 - 310	°C
Middle Temperature	295 - 310	°C
Rear Temperature	255 - 265	°C
Mold Temperature	70 - 95	°C