



LEXANT™ FR RESINS FL910

REGION AMERICAS

DESCRIPTION

LEXANT™ FL910 resin is a 10% glass fiber filled foamable polycarbonate. Flame retardant, UL94 V0 and 5VA rated. High flexural strength and modulus. Injection moldable.

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
FOAM - MECHANICAL 6.4 mm Wt Reduction	10	%	-
Tensile Stress, yield, 6.35 mm	52	MPa	ASTM D638
Tensile Strain, break, 6.35 mm	4.8	%	ASTM D638
Tensile Modulus, 6.4 mm	3170	MPa	ASTM D638
Flexural Stress, yield, 6.4 mm	89	MPa	ASTM D790
Flexural Modulus, 6.4 mm	3510	MPa	ASTM D790
IMPACT			
FOAM - IMPACT 6.4 mm Wt Reduction	10	%	-
Izod Impact, unnotched, 23°C	854	J/m	ASTM D4812
Falling Dart Impact, 23°C	46	J	SABIC method
THERMAL			
FOAM - THERMAL 6.4mm Wt Reduction	10	%	-
HDT, 0.45 MPa, 6.4 mm, unannealed	140	°C	ASTM D648
HDT, 1.82 MPa, 6.4 mm, unannealed	133	°C	ASTM D648
CTE, -40°C to 95°C, flow	3.24E-05	1/°C	ASTM E831
Specific Heat	1.19	J/g·°C	ASTM C351
Thermal Conductivity	0.13	W/m·°C	ASTM C177
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 D792
Specific Gravity, foam molded	1.12	-	ASTM D792
Water Absorption, (23°C/24hrs)	0.16	%	ASTM D570
Water Absorption, (23°C/Saturated)	0.32	%	ASTM D570
Mold Shrinkage, flow, 6.4 mm	0.4 – 0.6	%	SABIC method
ELECTRICAL			
FOAM - ELECTRICAL 6.4 mm Wt Reduction	20	%	-
Volume Resistivity	2.4E+17	Ω.cm	ASTM D257
Surface Resistivity	>1.1E+17	Ω	ASTM D257
Relative Permittivity, 100 Hz	2.45	-	ASTM D150
Relative Permittivity, 1 MHz	2.4	-	ASTM D150
Dissipation Factor, 100 Hz	0.0013	-	ASTM D150

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Dissipation Factor, 1 MHz	0.0065	-	ASTM D150
Arc Resistance, Tungsten {PLC}	7	PLC Code	ASTM D495
High Voltage Arc Track Rate {PLC}	4	PLC Code	UL 746A
Comparative Tracking Index (UL) {PLC}	3	PLC Code	UL 746A
FLAME CHARACTERISTICS			
UL Yellow Card Link	<u>E121562-220929</u>	-	-
FOAM - Flame Class Minimum Density	0.85	g/cm ³	-
UL Recognized, 94V-0 Flame Class Rating	2.99	mm	UL 94
UL Recognized, 94-5VA Flame Class Rating	2.99	mm	UL 94
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	