

LEXAN[™] FR RESINS 9915A

REGION AMERICAS

DESCRIPTION

LEXAN 9915A Polycarbonate (PC) is an injection moldable non-halogenated, unfilled transparent flame retardant grade with high viscosity. It is UV stabilized and has an MVR of $7(300^{\circ}\text{C}/1.2\text{kg})$ and a UL94 V0@1.5mm, and is available in various color options.

TYPICAL PROPERTY VALUES

Revision 20190424

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	64	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	62	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	6	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	110	%	ASTM D 638
Tensile Modulus, 50 mm/min	2320	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	101	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2300	MPa	ASTM D 790
IMPACT			
Izod Impact, unnotched, 23°C	2130	J/m	ASTM D 4812
Izod Impact, notched, 23°C	796	J/m	ASTM D 256
Izod Impact, notched, -30°C	123	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	75	J	ASTM D 3763
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	142	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	125	°C	ASTM D 648
CTE, -40°C to 95°C, flow	6.8E-05	1/°C	ASTM E 831
CTE, -40°C to 95°C, xflow	6.8E-05	1/°C	ASTM E 831
Vicat Softening Temp, Rate B/120	146	°C	ISO 306
Relative Temp Index, Elec	125	°C	UL 746B
Relative Temp Index, Mech w/impact	115	°C	UL 746B
Relative Temp Index, Mech w/o impact	125	°C	UL 746B
PHYSICAL			
Specific Gravity	1.2	-	ASTM D 792
Density	1.07	g/cm³	ASTM D 792
Mold Shrinkage on Tensile Bar, flow	0.6 – 0.8	%	SABIC method
Melt Flow Rate, 300°C/1.2 kgf	6.3	g/10 min	ASTM D 1238
ELECTRICAL			
Hot Wire Ignition (PLC)	3	PLC Code	UL 746A
High Ampere Arc Ign, surface {PLC}	1	PLC Code	UL 746A
Comparative Tracking Index (UL) {PLC}	3	PLC Code	UL 746A
FLAME CHARACTERISTICS			
UL Recognized, 94V-0 Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING			
Drying Temperature	120	°C	



PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Drying Time	3 – 4	hrs	
Drying Time (Cumulative)	48	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	280 – 305	°C	
Nozzle Temperature	275 – 300	°C	
Front - Zone 3 Temperature	280 – 305	°C	
Middle - Zone 2 Temperature	270 – 295	°C	
Rear - Zone 1 Temperature	260 – 280	°C	
Mold Temperature	70 – 95	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	40 – 70	rpm	
Shot to Cylinder Size	40 – 60	%	
Vent Depth	0.025 – 0.076	mm	

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