

LEXANT™ RESIN 191

REGION AMERICAS

DESCRIPTION

LEXANT™ 191 resin is a 9 MFR polycarbonate. UL94 HB rated. Improved chemical resistance. Available only in opaque colors.

TYPICAL PROPERTY VALUES

Revision 20201125

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	58	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	63	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	7	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	115	%	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	81	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2130	MPa	ASTM D790
Hardness, Rockwell M	68	-	ASTM D785
Hardness, Rockwell R	118	-	ASTM D785
Taber Abrasion, CS-17, 1 kg	20	mg/1000cy	ASTM D1044
IMPACT			
Izod Impact, unnotched, 23°C	3204	J/m	ASTM D4812
Izod Impact, notched, 23°C	747	J/m	ASTM D256
Tensile Impact Strength, Type S	420	kJ/m²	ASTM D1822
Falling Dart Impact (D 3029), 23°C	169	J	ASTM D3029
THERMAL			
HDT, 0.45 MPa, 6.4 mm, unannealed	137	°C	ASTM D648
HDT, 1.82 MPa, 6.4 mm, unannealed	126	°C	ASTM D648
CTE, -40°C to 95°C, flow	6.48E-05	1/°C	ASTM E831
Relative Temp Index, Elec	100	°C	UL 746B
Relative Temp Index, Mech w/impact	100	°C	UL 746B
Relative Temp Index, Mech w/o impact	100	°C	UL 746B
PHYSICAL			
Specific Gravity	1.19	-	ASTM D792
Specific Volume	0.84	cm³/g	ASTM D792
Water Absorption, (23°C/24hrs)	0.19	%	ASTM D570
Water Absorption, (23°C/Saturated)	0.37	%	ASTM D570
Water Absorption, equilibrium, 100°C	0.54	%	ASTM D570
Mold Shrinkage, flow, 3.2 mm	0.5 – 0.7	%	SABIC method
Melt Flow Rate, 300°C/1.2 kgf	8.5	g/10 min	ASTM D1238
ELECTRICAL			
Volume Resistivity	2.5E+17	Ω.cm	ASTM D257
Dielectric Strength, in air, 3.2 mm	16.3	kV/mm	ASTM D149
Relative Permittivity, 1 MHz	3	-	ASTM D150
Dissipation Factor, 50/60 Hz	0.0009	-	ASTM D150
Dissipation Factor, 1 MHz	0.01	-	ASTM D150

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CHEMISTRY THAT MATTERS™



PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Arc Resistance, Tungsten {PLC}	5	PLC Code	ASTM D495
Hot Wire Ignition {PLC}	2	PLC Code	UL 746A
High Voltage Arc Track Rate {PLC}	2	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 Yellow Card Link	E121562-220870	-	-
UL Recognized, 94HB Flame Class Rating	1.47	mm	UL 94
INJECTION MOLDING			
Drying Temperature	120	°C	
Drying Time	3 – 4	Hrs	
Drying Time (Cumulative)	48	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	310 – 330	°C	
Nozzle Temperature	305 – 325	°C	
Front - Zone 3 Temperature	310 – 330	°C	
Middle - Zone 2 Temperature	300 – 320	°C	
Rear - Zone 1 Temperature	290 – 310	°C	
Mold Temperature	80 – 115	°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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