

LEXANT™ RESIN 123M

REGION AMERICAS

DESCRIPTION

LEXANT™ 123M resin is a 18 MFR polycarbonate. UV Stabilized. Improved internal mold release. UL94 HB rated.

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	63	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	66	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	7	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	120	%	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	100	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2350	MPa	ASTM D790
IMPACT			
Izod Impact, unnotched, 23°C	2140	J/m	ASTM D4812
Izod Impact, notched, 23°C	820	J/m	ASTM D256
Izod Impact, notched, -30°C	200	J/m	ASTM D256
Falling Dart Impact (D 3029), 23°C	169	J	ASTM D3029
Instrumented Dart Impact Total Energy, 23°C	77	J	ASTM D3763
THERMAL			
Vicat Softening Temp, Rate B/50	143	°C	ASTM D1525
HDT, 0.45 MPa, 3.2 mm, unannealed	137	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	132	°C	ASTM D648
CTE, -40°C to 40°C, flow	6.36E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	6.5E-05	1/°C	ASTM E831
Specific Heat	1.26	J/g-°C	ASTM C351
Thermal Conductivity	0.19	W/m-°C	ASTM C177
PHYSICAL			
Specific Gravity	1.2	-	ASTM D792
Specific Volume	0.83	cm ³ /g	ASTM D792
Density	1.19	g/cm ³	ASTM D792
Water Absorption, (23°C/24hrs)	0.15	%	ASTM D570
Water Absorption, (23°C/Saturated)	0.35	%	ASTM D570
Water Absorption, equilibrium, 100°C	0.58	%	ASTM D570
Mold Shrinkage, flow, 3.2 mm	0.5 – 0.8	%	SABIC method
Melt Flow Rate, 300°C/1.2 kgf	17.5	g/10 min	ASTM D1238
OPTICAL			
Light Transmission, 2.54 mm	88	%	ASTM D1003
Haze, 2.54 mm	1	%	ASTM D1003
Refractive Index	1.586	-	ASTM D542
FLAME CHARACTERISTICS			
UL Yellow Card Link	E121562-220864	-	-

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INJECTION MOLDING			
Drying Temperature	120	°C	
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	