

LEXAN™ 123M resin

Polycarbonate

SABIC Innovative Plastics

Message:

Nonhalogenated. 17.5 MFR, for small, intricate parts. UV stabilized. Improved Internal mold release.

General Information			
UL YellowCard	E121562-220864		
Additive	UV stabilizer		
Features	UV Stabilized		
	Halogen-free		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			ASTM D792
--	1.20	g/cm ³	ASTM D792
--	1.19	g/cm ³	ASTM D792
Specific Volume	0.830	cm ³ /g	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	18	g/10 min	ASTM D1238
Molding Shrinkage - Flow (3.20 mm)	0.50 - 0.80	%	Internal method
Water Absorption			ASTM D570
24 hr	0.15	%	ASTM D570
Equilibrium, 23°C	0.35	%	ASTM D570
Equilibrium, 100°C	0.58	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ¹			ASTM D638
Yield	63.0	MPa	ASTM D638
Fracture	66.0	MPa	ASTM D638
Tensile Elongation ²			ASTM D638
Yield	7.0	%	ASTM D638
Fracture	120	%	ASTM D638
Flexural Modulus ³ (50.0 mm Span)	2350	MPa	ASTM D790
Flexural Strength ⁴ (Yield, 50.0 mm Span)	100	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-30°C	200	J/m	ASTM D256
23°C	820	J/m	ASTM D256
Unnotched Izod Impact (23°C)	2100	J/m	ASTM D4812
Instrumented Dart Impact (23°C, Total Energy)	77.0	J	ASTM D3763

Dart Drop Impact (23°C)	169	J	ASTM D3029
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 3.20mm	137	°C	ASTM D648
1.8 MPa, unannealed, 3.20mm	132	°C	ASTM D648
Vicat Softening Temperature	143	°C	ASTM D1525 ⁵
Linear thermal expansion coefficient			ASTM E831
Flow: -40 to 40°C	6.4E-5	cm/cm/°C	ASTM E831
Lateral: -40 to 40°C	6.5E-5	cm/cm/°C	ASTM E831
Specific Heat	1260	J/kg/°C	ASTM C351
Thermal Conductivity	0.19	W/m/K	ASTM C177
Optical	Nominal Value	Unit	Test Method
Refractive Index	1.586		ASTM D542
Transmittance (2540 μm)	88.0	%	ASTM D1003
Haze (2540 μm)	1.0	%	ASTM D1003
Injection	Nominal Value	Unit	
Drying Temperature	121	°C	
Drying Time	3.0 - 4.0	hr	
Drying Time, Maximum	48	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 - 60	%	
Rear Temperature	260 - 282	°C	
Middle Temperature	271 - 293	°C	
Front Temperature	282 - 304	°C	
Nozzle Temperature	277 - 299	°C	
Processing (Melt) Temp	282 - 304	°C	
Mold Temperature	71 - 93	°C	
Back Pressure	0.345 - 0.689	MPa	
Screw Speed	40 - 70	rpm	
Vent Depth	0.025 - 0.076	mm	
NOTE			
1.	Type 1, 50mm/min		
2.	Type 1, 50mm/min		
3.	1.3 mm/min		
4.	1.3 mm/min		
5.	标准 B (120°C/h), 载荷2 (50N)		

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