

LEXAN™ ML7681 resin

Polycarbonate

SABIC Innovative Plastics Asia Pacific

Message:

Polycarbonate with high flow, good processability, good impact and thermal properties, non-Chlorine and non-Bromine flame retardant, UL rated V-0 and V-1. Available in limited translucent colors only.

General Information			
UL YellowCard	E207780-100126539		
Features	Bromine Free		
	Chlorine Free		
	Flame Retardant		
	Good Impact Resistance		
	Good Processability		
	High Flow		
	High Heat Resistance		
Appearance	Colors Available		
	Translucent		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.19	g/cm³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	25	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	24.0	cm³/10min	ISO 1133
Molding Shrinkage			Internal Method
Flow : 3.20 mm	0.60 to 0.80	%	
Across Flow : 3.20 mm	0.60 to 0.80	%	
Water Absorption			ISO 62
Saturation, 23°C	0.24	%	
Equilibrium, 23°C, 50% RH	0.090	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2250	MPa	ASTM D638
--	2200	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	53.0	MPa	ASTM D638
Yield	52.0	MPa	ISO 527-2/50
Break ³	54.0	MPa	ASTM D638
Break	51.0	MPa	ISO 527-2/50

Tensile Elongation			
Yield ⁴	6.0	%	ASTM D638
Yield	5.8	%	ISO 527-2/50
Break ⁵	100	%	ASTM D638
Break	98	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span ⁶	2200	MPa	ASTM D790
-- ⁷	2300	MPa	ISO 178
Flexural Stress			
--	93.0	MPa	ISO 178
Yield, 50.0 mm Span ⁸	95.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
-30°C	230	J/m	ASTM D256
23°C	710	J/m	ASTM D256
-30°C ⁹	21	kJ/m ²	ISO 180/1A
23°C ¹⁰	58	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength ¹¹			ISO 180/1U
-30°C	180	kJ/m ²	
23°C	180	kJ/m ²	
Instrumented Dart Impact (23°C, Total Energy)	65.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed, 3.20 mm)	120	°C	ASTM D648
Vicat Softening Temperature			
--	136	°C	ASTM D1525 ¹²
--	137	°C	ISO 306/B50
--	138	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
CLTE			
Flow : -40 to 40°C	7.1E-5	cm/cm/°C	ASTM E831
Flow : 23 to 80°C	6.8E-5	cm/cm/°C	ISO 11359-2
Transverse : -40 to 40°C	6.9E-5	cm/cm/°C	ASTM E831
Transverse : 23 to 80°C	6.9E-5	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value		Test Method
Comparative Tracking Index (CTI)	PLC 3		UL 746
Flammability	Nominal Value		Test Method
Flame Rating			UL 94
1.00 mm	V-1		
1.20 mm	V-0		
Injection	Nominal Value	Unit	
Drying Temperature	121	°C	

Drying Time	3.0 to 4.0	hr
Drying Time, Maximum	48	hr
Suggested Max Moisture	0.020	%
Suggested Shot Size	40 to 60	%
Rear Temperature	249 to 271	°C
Middle Temperature	260 to 282	°C
Front Temperature	271 to 293	°C
Nozzle Temperature	266 to 288	°C
Processing (Melt) Temp	271 to 293	°C
Mold Temperature	71.1 to 93.3	°C
Back Pressure	0.345 to 0.689	MPa
Screw Speed	40 to 70	rpm
Vent Depth	0.025 to 0.076	mm

NOTE

1. 50 mm/min
2. Type I, 50 mm/min
3. Type I, 50 mm/min
4. Type I, 50 mm/min
5. Type I, 50 mm/min
6. 1.3 mm/min
7. 2.0 mm/min
8. 1.3 mm/min
9. 80*10*3
10. 80*10*3
11. 80*10*3
12. Rate B (120°C/h), Loading 2 (50 N)

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

