

LEXAN™ ML7686 resin

Polycarbonate
SABIC Innovative Plastics Europe

Message:
Transparent Polycarbonate in limited colors. Excellent processability, super high flow. UL rated V-2 at 1.5mm.

General Information			
UL YellowCard	E45329-100962695		
Features	Good Processability		
	High Flow		
RoHS Compliance	RoHS Compliant		
Appearance	Clear/Transparent		
	Colors Available		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR)			ASTM D1238
260°C/2.16 kg	23	g/10 min	
300°C/1.2 kg	45	g/10 min	
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	43.0	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.50 to 0.70	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	0.28	%	
Equilibrium, 23°C, 50% RH	0.35	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2800	MPa	ISO 527-2/1
Tensile Stress			ISO 527-2/50
Yield	75.0	MPa	
Break	55.0	MPa	
Tensile Strain			ISO 527-2/50
Yield	5.0	%	
Break	60	%	
Flexural Modulus ¹	2700	MPa	ISO 178
Flexural Stress	110	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ²			ISO 179/1eA
-30°C	5.6	kJ/m ²	

23°C	5.7	kJ/m ²	
Charpy Unnotched Impact Strength ³			ISO 179/1eU
-30°C	> 100	kJ/m ²	
23°C	> 100	kJ/m ²	
Notched Izod Impact			
-30°C	45	J/m	ASTM D256
23°C	40	J/m	ASTM D256
-30°C ⁴	5.7	kJ/m ²	ISO 180/1A
23°C ⁵	6.0	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength ⁶			ISO 180/1U
-30°C	> 100	kJ/m ²	
23°C	> 100	kJ/m ²	
Instrumented Dart Impact (23°C, Total Energy)		J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
1.8 MPa, Unannealed, 3.20 mm	103	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ⁷	106	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	113	°C	ASTM D1525 ⁸
--	112	°C	ISO 306/B50
--	115	°C	ISO 306/B120
CLTE			
Flow : -40 to 40°C	6.6E-5	cm/cm/°C	ASTM E831
Flow : 23 to 80°C	7.2E-5	cm/cm/°C	ISO 11359-2
Transverse : -40 to 40°C	6.7E-5	cm/cm/°C	ASTM E831
Transverse : 23 to 80°C	7.4E-5	cm/cm/°C	ISO 11359-2
Flammability	Nominal Value		Test Method
Flame Rating (1.50 mm)	V-2		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	75.0 to 85.0	°C	
Drying Time	2.0 to 4.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	60.0 to 80.0	°C	
Rear Temperature	230 to 250	°C	
Middle Temperature	240 to 260	°C	
Front Temperature	250 to 270	°C	
Nozzle Temperature	240 to 260	°C	
Processing (Melt) Temp	250 to 270	°C	
Mold Temperature	70.0 to 85.0	°C	
NOTE			
1.	2.0 mm/min		

2.	80*10*3 sp=62mm
3.	80*10*3 sp=62mm
4.	80*10*3
5.	80*10*3
6.	80*10*3
7.	80*10*4 mm
8.	Rate B (120°C/h), Loading 2 (50 N)

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