

LEXAN™ ML7664 resin

Polycarbonate

SABIC Innovative Plastics Asia Pacific

Message:

LEXAN ML7664 polycarbonate (PC) siloxane resin, is a product targeting (profile) extrusion applications requiring extreme low temperature ductility. LEXAN ML7664 resin is a non-FR product available in opaque colors only.

General Information			
Features	Ductile		
Appearance	Opaque		
Processing Method	Profile Extrusion		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.19	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	2.8	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	2.60	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.60 to 1.0	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	0.35	%	
Equilibrium, 23°C, 50% RH	0.15	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2200	MPa	ASTM D638
--	2300	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	60.0	MPa	ASTM D638
Yield	59.0	MPa	ISO 527-2/50
Break ³	56.0	MPa	ASTM D638
Break	59.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁴	6.0	%	ASTM D638
Yield	6.0	%	ISO 527-2/50
Break ⁵	86	%	ASTM D638
Break	76	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span ⁶	2300	MPa	ASTM D790
-- ⁷	2100	MPa	ISO 178
Flexural Stress			
--	90.0	MPa	ISO 178
Yield, 50.0 mm Span ⁸	97.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method

Charpy Notched Impact Strength ⁹ (23°C)	77	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	710	J/m	ASTM D256
23°C	850	J/m	ASTM D256
-30°C ¹⁰	54	kJ/m ²	ISO 180/1A
23°C ¹¹	64	kJ/m ²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	72.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
1.8 MPa, Unannealed, 3.20 mm	127	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹²	125	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	144	°C	ASTM D1525 ¹³
--	143	°C	ISO 306/B50
--	145	°C	ISO 306/B120
CLTE			ASTM E831, ISO 11359-2
Flow : -40 to 40°C	7.0E-5	cm/cm/°C	
Transverse : -40 to 40°C	7.0E-5	cm/cm/°C	
Extrusion	Nominal Value	Unit	
Drying Temperature	120	°C	
Drying Time	2.0 to 4.0	hr	
Hopper Temperature	100 to 120	°C	
Cylinder Zone 1 Temp.	240 to 280	°C	
Cylinder Zone 2 Temp.	260 to 290	°C	
Cylinder Zone 3 Temp.	260 to 290	°C	
Cylinder Zone 4 Temp.	260 to 290	°C	
Adapter Temperature	270 to 300	°C	
Melt Temperature	280 to 300	°C	
Die Temperature	260 to 290	°C	
Calibration Temp, First	80.0 to 100	°C	
NOTE			
1.	5.0 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*4 sp=62mm		
10.	80*10*4		

11.	80*10*4
12.	80*10*4 mm
13.	Rate B (120°C/h), Loading 2 (50 N)

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