

LEXAN™ ML7689 resin

Polycarbonate
SABIC Innovative Plastics Europe

Message:

LEXAN ML7689 polycarbonate (PC) siloxane copolymer resin IS a high viscosity injection molding (IM) grade WITH good processability, offering opportunities FOR shorter IM CYCLE times compared TO standard PC resins. This resin offers extreme low temperature (-40 degree C) ductility. LEXAN ML7689resin IS FDA/EU FC compliant available IN OPAQUE colors ONLY AND IS an excellent candidate FOR food contact applications.

General Information			
Features	Copolymer		
	Workability, good		
	Fast molding cycle		
	Compliance of Food Exposure		
	ductility		
	Viscosity, High		
Uses	Non-specific food applications		
Agency Ratings	FDA Food Exposure, Not Rated		
	European food contact, not rated		
Appearance	Opacity		
	Available colors		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.18	g/cm ³	ASTM D792
--	1.19	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	6.0	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	6.00	cm ³ /10min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2050	MPa	ASTM D638
--	2150	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	56.0	MPa	ASTM D638
Yield	57.0	MPa	ISO 527-2/50
Fracture ³	50.0	MPa	ASTM D638
Fracture	60.0	MPa	ISO 527-2/50
Tensile Elongation			

Yield ⁴	6.0	%	ASTM D638
Yield	6.0	%	ISO 527-2/50
Fracture ⁵	100	%	ASTM D638
Fracture	120	%	ISO 527-2/50
Flexural Modulus			
50.0mm span ⁶	2250	MPa	ASTM D790
-- ⁷	2250	MPa	ISO 178
Flexural Stress			
--	85.0	MPa	ISO 178
Yield, 50.0mm span ⁸	92.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	850	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, unannealed, 3.20mm	139	°C	ASTM D648
1.8 MPa, unannealed, 3.20mm	124	°C	ASTM D648
1.8 MPa, unannealed, 100 mm span ⁹	128	°C	ISO 75-2/Ae
Vicat Softening Temperature	146	°C	ISO 306/B120
Linear thermal expansion coefficient			ISO 11359-2
Flow: 23 to 80°C	7.2E-5	cm/cm/°C	ISO 11359-2
Lateral: 23 to 80°C	7.2E-5	cm/cm/°C	ISO 11359-2
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	271 - 293	°C	
Middle Temperature	282 - 304	°C	
Front Temperature	293 - 316	°C	
Nozzle Temperature	288 - 310	°C	
Processing (Melt) Temp	293 - 316	°C	
Mold Temperature	71.1 - 93.3	°C	
Back Pressure	0.345 - 0.689	MPa	
Screw Speed	40 - 70	rpm	
Vent Depth	0.025 - 0.076	mm	
NOTE			
1.	50 mm/min		
2.	Type 1, 50mm/min		
3.	Type 1, 50mm/min		
4.	Type 1, 50mm/min		
5.	Type 1, 50mm/min		

6.	1.3 mm/min
7.	2.0 mm/min
8.	1.3 mm/min
9.	120*10*4 mm

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