

LEXAN™ ML3729 resin

Polycarbonate

SABIC Innovative Plastics Europe

Message:

Excellent flow, UV stabilized, grade which contains a release agent to ensure easy processing.

General Information			
UL YellowCard	E121562-102289603		
Additive	demoulding		
	UV stabilizer		
Features	Workability, good		
	Good liquidity		
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) (300°C/1.2 kg)	39	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR)			ISO 1133
250°C/1.2 kg	6.00	cm ³ /10min	ISO 1133
300°C/1.2 kg	36.0	cm ³ /10min	ISO 1133
Molding Shrinkage			Internal method
Flow: 3.20mm	0.50 - 0.70	%	Internal method
Transverse flow: 3.20mm	0.50 - 0.70	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	0.27	%	ISO 62
Equilibrium, 23°C, 50% RH	0.090	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2410	MPa	ASTM D638
--	2300	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	62.6	MPa	ASTM D638
Yield	60.0	MPa	ISO 527-2/50
Fracture ³	58.0	MPa	ASTM D638
Fracture	55.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁴	6.0	%	ASTM D638
Yield	5.7	%	ISO 527-2/50
Fracture ⁵	110	%	ASTM D638

Fracture	110	%	ISO 527-2/50
Flexural Modulus			
50.0mm span ⁶	2410	MPa	ASTM D790
-- ⁷	2300	MPa	ISO 178
Flexural Stress			
--	85.0	MPa	ISO 178
Yield, 50.0mm span ⁸	102	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹			ISO 179/1eA
-30°C	5.0	kJ/m ²	ISO 179/1eA
23°C	12	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	55	J/m	ASTM D256
23°C	690	J/m	ASTM D256
-30°C ¹⁰	4.0	kJ/m ²	ISO 180/1A
23°C ¹¹	12	kJ/m ²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	66.2	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, unannealed, 3.20mm	135	°C	ASTM D648
0.45 MPa, unannealed, 100 mm span ¹²	133	°C	ISO 75-2/Be
1.8 MPa, unannealed, 3.20mm	125	°C	ASTM D648
1.8 MPa, unannealed, 100 mm span ¹³	121	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	140	°C	ASTM D1525, ISO 306/B120 11 ¹⁴
--	139	°C	ISO 306/B50
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
Linear thermal expansion coefficient			
Flow: -40 to 40°C	7.2E-5	cm/cm/°C	ASTM E831
Lateral: -40 to 40°C	7.8E-5	cm/cm/°C	ASTM E831, 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	249 - 271	°C	
Middle Temperature	260 - 282	°C	
Front Temperature	271 - 293	°C	
Nozzle Temperature	266 - 288	°C	
Processing (Melt) Temp	271 - 293	°C	

Mold Temperature	71.0 - 93.0	°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.	80*10*4 sp=62mm	
10.	80*10*4	
11.	80*10*4	
12.	120*10*4 mm	
13.	120*10*4 mm	
14.	标准 B (120°C/h), 载荷2 (50N)	

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