LEXAN™ ML3729R resin

Polycarbonate

SABIC Innovative Plastics

Message:

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

General Information			
UL YellowCard	E121562-102289604		
Additive	Mold Release UV Stabilizer		
Features	Good Mold Release Good Processability Good UV Resistance High Flow		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.20	g/cm³	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	cm³/10min	
300°C/1.2 kg	36.0	cm³/10min	
Molding Shrinkage			Internal Method
Flow : 3.20 mm	0.50 to 0.70	%	
Across Flow : 3.20 mm	0.50 to 0.70	%	
Water Absorption			ISO 62
Saturation, 23°C	0.27	%	
Equilibrium, 23°C, 50% RH	0.090	%	
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
Break [3]	58.0	MPa	ASTM D638
Break	55.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield [4]	6.0	%	ASTM D638

Yield	5.7	%	ISO 527-2/50
Break [5]	110	%	ASTM D638
Break	110	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span [6]	2410	MPa	ASTM D790
-- [7]	2300	MPa	ISO 178
Flexural Stress			
--	85.0	MPa	ISO 178
Yield, 50.0 mm 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	
23°C	12	kJ/m^2	
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, 3.20 mm	135	°C	ASTM D648
0.45 MPa, Unannealed, 100 mm Span [12]	133	°C	ISO 75-2/Be
1.8 MPa, Unannealed, 3.20 mm	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
CLTE			
Flow : -40 to 40°C	7.2E-5	cm/cm/°C	ASTM E831
Transverse : -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 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	71.0 to 93.0	°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*4 sp=62mm
10.	80*10*4
11.	80*10*4
12.	120*10*4 mm
13.	120*10*4 mm
14.	Rate B (120°C/h), Loading 2 (50 N)

Recommended distributors for this material

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