LEXAN™ IR2240 resin

Polycarbonate

SABIC Innovative Plastics

Message:

Mid-flow polycarbonate resin with mold release. FDA food contact compliant. Available in limited transparent tints, limited package types, and must meet minimum order quantity requirements.

General Information			
UL YellowCard	E121562-220863		
Additive	Mold Release		
Features	Food Contact Acceptable Medium Flow		
Agency Ratings	FDA Food Contact, Unspecified Rating		
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)	11	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	9.50	cm³/10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.50 to 0.70	%	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]	2410	MPa	ASTM D638
--	2350	MPa	ISO 527-2/1
Tensile Strength			
Yield [2]	62.1	MPa	ASTM D638
Yield	63.0	MPa	ISO 527-2/50
Break [3]	68.9	MPa	ASTM D638
Break	70.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield [4]	7.0	%	ASTM D638
Yield	6.0	%	ISO 527-2/50
Break [5]	130	%	ASTM D638
Break	110	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span [6]	2340	MPa	ASTM D790
-- [7]	2300	MPa	ISO 178

Flexural Stress			
--	90.0	MPa	ISO 178
Yield, 50.0 mm Span [8]	97.9	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Unnotched Impact Strength [9] (23°C)	No Break		ISO 179/1eU
Notched Izod Impact			
23°C	800	J/m	ASTM D256
-30°C [10]	10	kJ/m²	ISO 180/1A
23°C [11]	12	kJ/m²	ISO 180/1A
Unnotched Izod Impact (23°C)	3200	J/m	ASTM D4812
Instrumented Dart Impact (23°C, Total Energy)	63.0	J	ASTM D3763
Tensile Impact Strength [12]	578	kJ/m²	ASTM D1822
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 6.40 mm	138	°C	ASTM D648
1.8 MPa, Unannealed, 6.40 mm	132	°C	ASTM D648
1.8 MPa, Unannealed, 100 mm Span [13]	125	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	154	°C	ASTM D1525 [14]
--	141	°C	ISO 306/B50
--	142	°C	ISO 306/B120
CLTE			ASTM E831, ISO 11359-2
Flow : -40 to 40°C	6.8E-5	cm/cm/°C	
Transverse : -40 to 40°C	6.7E-5	cm/cm/°C	
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	271 to 293	°C	
Middle Temperature	282 to 304	°C	
Front Temperature	293 to 316	°C	
Nozzle Temperature	288 to 310	°C	
Processing (Melt) Temp	293 to 316	°C	
Mold Temperature	71.1 to 93.3	°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.	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.	Type S
13.	120*10*4 mm
14.	Rate B (120°C/h), Loading 2 (50 N)

Recommended distributors for this material

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