Infino ML-1020R

Lotte Chemical Corporation - Polycarbonate

General Information	
General	
Uses	• Medical Devices

Properties [1]			
Physical	**Nominal Value**	**Unit**	**Test Method**
Density / Specific Gravity (Natural)	1.20		ASTM D792
Density (Natural)	1.20	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	22	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	22	g/10 min	ISO 1133
Molding Shrinkage - Flow (0.126 in)	5.0E-3 to 7.0E-3	in/in	ASTM D955
Molding Shrinkage - Across Flow (0.126 in)	5.0E-3 to 7.0E-3	in/in	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow : 0.0787 in	0.50 to 0.70	%	
Flow : 0.0787 in	0.50 to 0.70	%	
Across Flow : 0.126 in	0.50 to 0.70	%	
Flow : 0.126 in	0.50 to 0.70	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus [2]	327000	psi	ASTM D638
Tensile Modulus	334000	psi	ISO 527-1/50
Tensile Strength [2] (Yield)	9100	psi	ASTM D638
Tensile Stress (Yield)	9280	psi	ISO 527-2/50
Tensile Strength [2] (Break)	9100	psi	ASTM D638
Tensile Stress (Break)	9280	psi	ISO 527-2/50
Tensile Elongation [2] (Break)	110	%	ASTM D638
Tensile Strain (Break)	110	%	ISO 527-2/50
Flexural Modulus [3]	327000	psi	ASTM D790
Flexural Modulus [4]	334000	psi	ISO 178
Flexural Strength [3]	13100	psi	ASTM D790
Flexural Stress [4]	13300	psi	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength [5] (73°F)	29	ft·lb/in²	ISO 179/1eA
Notched Izod Impact			ASTM D256
73°F, 0.125 in	14	ft·lb/in	
73°F, 0.250 in	1.8	ft·lb/in	
Notched Izod Impact Strength [5] (73°F)	31	ft·lb/in²	ISO 180/1A
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	120		ASTM D785
Rockwell Hardness (R-Scale)	120		ISO 2039-2

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi, Unannealed, 0.252 in	277	°F	
Deflection Temperature Under Load			ISO 75-2/B
66 psi, Unannealed, 0.157 in	277	°F	
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed, 0.252 in	257	°F	
Deflection Temperature Under Load			ISO 75-2/A
264 psi, Unannealed, 0.157 in	253	°F	
Vicat Softening Temperature	293	°F	ISO 306/B50

Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.03 to 0.12 in)	V-2		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer	248	°F
Hot Air Dryer	248	°F
Drying Time		
Desiccant Dryer	4.0	hr
Hot Air Dryer	4.0	hr
Suggested Max Moisture	< 0.050	%
Rear Temperature	122 to 176	°F
Middle Temperature	482 to 518	°F
Front Temperature	518 to 554	°F
Nozzle Temperature	482 to 536	°F
Mold Temperature	158 to 212	°F
Injection Pressure	925	psi
Back Pressure	42.7 to 107	psi
Screw Speed	50 to 75	rpm

Injection Notes

Hot Runner Temperature: 250 to 270°C

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] 2.0 in/min

[3] 0.11 in/min

[4] 0.079 in/min

[5] 4mm