Infino CF-1021T

Lotte Chemical Corporation - Polycarbonate

Tuesday, June 27, 2023

General Information

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.18	g/cm³	ASTM D792
Density (Natural)	1.18	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR)			ASTM D1238
250°C/10.0 kg	36	g/10 min	
300°C/1.2 kg	19	g/10 min	
Melt Mass-Flow Rate (MFR)			ISO 1133
250°C/10.0 kg	36	g/10 min	
300°C/1.2 kg	19	g/10 min	
Molding Shrinkage - Flow (3.20 mm)	0.40 to 0.70	%	ASTM D955
Molding Shrinkage - Across Flow (3.20 mm)	0.40 to 0.70	%	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow : 2.00 mm	0.40 to 0.70	%	
Flow : 2.00 mm	0.40 to 0.70	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus [2]	2160	MPa	ASTM D638
Tensile Modulus	2200	MPa	ISO 527-1/50
Tensile Strength [2] (Yield)	63.7	MPa	ASTM D638
Tensile Stress (Yield)	60.0	MPa	ISO 527-2/50
Tensile Strength [2] (Break)	68.6	MPa	ASTM D638
Tensile Stress (Break)	75.0	MPa	ISO 527-2/50
Tensile Elongation [2] (Break)	80	%	ASTM D638
Tensile Strain (Break)	80	%	ISO 527-2/50
Flexural Modulus [3]	2060	MPa	ASTM D790
Flexural Modulus [4]	2300	MPa	ISO 178
Flexural Strength [3]	56.9	MPa	ASTM D790
Flexural Stress [4]	92.0	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength [5] (23°C)	57	kJ/m²	ISO 179/1eA
Notched Izod Impact			ASTM D256
23°C, 3.18 mm	690	J/m	
23°C, 6.35 mm	98	J/m	
Notched Izod Impact Strength [5] (23°C)	70	kJ/m²	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
0.45 MPa, Unannealed, 6.40 mm	133	°C	
Deflection Temperature Under Load			ISO 75-2/B
0.45 MPa, Unannealed, 4.00 mm	133	°C	
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed, 6.40 mm	120	°C	
Deflection Temperature Under Load			ISO 75-2/A
1.8 MPa, Unannealed, 4.00 mm	130	°C	
Vicat Softening Temperature	140	°C	ISO 306/B50

Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer	100	°C
Hot Air Dryer	100	°C
Drying Time		
Desiccant Dryer	2.0 to 4.0	hr
Hot Air Dryer	2.0 to 6.0	hr
Suggested Max Moisture	< 0.050	%
Rear Temperature	260 to 270	°C
Middle Temperature	290 to 310	°C
Front Temperature	280 to 300	°C
Nozzle Temperature	290 to 310	°C
Mold Temperature	40 to 100	°C
Injection Pressure	49.0 to 245	MPa
Back Pressure	0.490 to 1.96	MPa
Screw Speed	50 to 150	rpm

Injection Notes

Hot Runner Temperature: 290 to 310°C

Notes

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

[2] 50 mm/min

[3] 2.8 mm/min

[4] 2.0 mm/min

[5] 4mm