

# Infino GC-1022U

Lotte Chemical Corporation - Polycarbonate

Saturday, July 1, 2023

## General Information

### General

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

## ASTM & ISO Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.18	g/cm <sup>3</sup>	ASTM D792
Density (Natural)	1.18	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (250°C/10.0 kg)	18	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (250°C/10.0 kg)	18	g/10 min	ISO 1133
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 <sup>2</sup>	1960	MPa	ASTM D638
Tensile Modulus	2000	MPa	ISO 527-1/50
Tensile Strength <sup>2</sup> (Yield)	57.9	MPa	ASTM D638
Tensile Stress (Yield)	55.0	MPa	ISO 527-2/50
Tensile Strength <sup>2</sup> (Break)	58.8	MPa	ASTM D638
Tensile Stress (Break)	60.0	MPa	ISO 527-2/50
Tensile Elongation <sup>2</sup> (Break)	100	%	ASTM D638
Tensile Strain (Break)	100	%	ISO 527-2/50
Flexural Modulus <sup>3</sup>	2060	MPa	ASTM D790
Flexural Modulus <sup>4</sup>	2100	MPa	ISO 178
Flexural Strength <sup>3</sup>	78.5	MPa	ASTM D790
Flexural Stress <sup>4</sup>	80.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength <sup>5</sup> (23°C)	50	kJ/m <sup>2</sup>	ISO 179/1eA
Notched Izod Impact (23°C, 3.18 mm)	590	J/m	ASTM D256
Notched Izod Impact Strength <sup>5</sup> (23°C)	50	kJ/m <sup>2</sup>	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	120		ASTM D785
Rockwell Hardness (R-Scale)	120		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed, 6.40 mm	127	°C	
Deflection Temperature Under Load			ISO 75-2/A
1.8 MPa, Unannealed, 4.00 mm	123	°C	
Vicat Softening Temperature	142	°C	ISO 306/B50

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## Lotte Chemical Corporation - Polycarbonate

Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.75 mm		V-2	
1.0 mm		V-2	
1.2 mm		V-1	
1.5 mm		V-0	
3.0 mm		V-0	

### Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer	100 to 120	°C
Hot Air Dryer	100 to 120	°C
Drying Time		
Desiccant Dryer	4.0	hr
Hot Air Dryer	4.0	hr
Suggested Max Moisture	0.020	%
Rear Temperature	220 to 260	°C
Middle Temperature	240 to 280	°C
Front Temperature	260 to 300	°C
Nozzle Temperature	260 to 300	°C
Mold Temperature	70 to 100	°C
Injection Pressure	68.6 to 127	MPa
Back Pressure	0.981 to 1.96	MPa
Screw Speed	60 to 90	rpm

### Injection Notes

Hot Runner Temperature: 260 to 300°C

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 50 mm/min

<sup>3</sup> 2.8 mm/min

<sup>4</sup> 2.0 mm/min

<sup>5</sup> 4mm