Infino GM-1080

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)	1.20	g/cm³	ASTM D792
Density (Natural)	1.20	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR)			ASTM D1238
250°C/10.0 kg	28	g/10 min	
300°C/1.2 kg	16	g/10 min	
Melt Mass-Flow Rate (MFR)			ISO 1133
250°C/10.0 kg	28	g/10 min	
300°C/1.2 kg	16	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]	1960	MPa	ASTM D638
Tensile Modulus	2000	MPa	ISO 527-1/50
Tensile Strength [2] (Yield)	58.8	MPa	ASTM D638
Tensile Stress (Yield)	60.0	MPa	ISO 527-2/50
Tensile Strength [2] (Break)	58.8	MPa	ASTM D638
Tensile Stress (Break)	70.0	MPa	ISO 527-2/50
Tensile Elongation [2] (Break)	100	%	ASTM D638
Tensile Strain (Break)	100	%	ISO 527-2/50
Flexural Modulus [3]	1960	MPa	ASTM D790
Flexural Modulus [4]	2000	MPa	ISO 178
Flexural Strength [3]	78.5	MPa	ASTM D790
Flexural Stress [4]	80.0	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength [5] (23°C)	58	kJ/m²	ISO 179/1eA
Notched Izod Impact			ASTM D256
23°C, 3.18 mm	710	J/m	
23°C, 6.35 mm	590	J/m	
Notched Izod Impact Strength [5] (23°C)	53	kJ/m²	ISO 180/1A
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	116		ASTM D785
Rockwell Hardness (R-Scale)	116		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	135	°C	
Deflection Temperature Under Load			ISO 75-2/B
0.45 MPa, Unannealed, 4.00 mm	130	°C	
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed, 6.40 mm	125	°C	
Deflection Temperature Under Load			ISO 75-2/A
1.8 MPa, Unannealed, 4.00 mm	115	°C	
Vicat Softening Temperature	139	°C	ISO 306/B50

Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.8 mm	V-2		
3.0 mm	V-2		

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	4.0 to 6.0	hr
Suggested Max Moisture	< 0.10	%
Rear Temperature	270 to 280	°C
Middle Temperature	280 to 290	°C
Front Temperature	290 to 300	°C
Nozzle Temperature	300	°C
Mold Temperature	80 to 100	°C
Injection Pressure	98.1	MPa
Back Pressure	0.981 to 2.94	MPa
Screw Speed	40 to 80	rpm

Injection Notes

Hot Runner Temperature: 300°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