

Infino GP-5000

Lotte Chemical Corporation - Polybutylene Terephthalate

General Information

General

Uses • Connectors

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.31		ASTM D792
Density (Natural)	1.30	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (250°C/2.16 kg)	74	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (250°C/2.16 kg)	71	g/10 min	ISO 1133
Molding Shrinkage - Flow (0.126 in)	0.012 to 0.021	in/in	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ²	313000	psi	ASTM D638
Tensile Modulus	334000	psi	ISO 527-1/50
Tensile Strength ² (Yield)	7820	psi	ASTM D638
Tensile Stress (Yield)	7980	psi	ISO 527-2/50
Tensile Strength ² (Break)	6680	psi	ASTM D638
Tensile Stress (Break)	6820	psi	ISO 527-2/50
Tensile Elongation ³ (Break)	4.0	%	ASTM D638
Tensile Strain (Break)	15	%	ISO 527-2/50
Flexural Modulus ⁴	327000	psi	ASTM D790
Flexural Modulus ⁵	305000	psi	ISO 178
Flexural Strength ⁴	12100	psi	ASTM D790
Flexural Stress ⁵	10700	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁶ (73°F)	2.3	ft·lb/in ²	ISO 179/1eA
Notched Izod Impact			ASTM D256
73°F, 0.125 in	0.51	ft·lb/in	
73°F, 0.250 in	0.50	ft·lb/in	
Notched Izod Impact Strength ⁶ (73°F)	2.1	ft·lb/in ²	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	115		ASTM D785
Rockwell Hardness (R-Scale)	117		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi, Unannealed, 0.252 in	338	°F	
Deflection Temperature Under Load			ISO 75-2/B
66 psi, Unannealed, 0.157 in	255	°F	
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed, 0.252 in	167	°F	
Deflection Temperature Under Load			ISO 75-2/A
264 psi, Unannealed, 0.157 in	138	°F	

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Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature			
--	•	370 °F	ISO 306/B120
	•	365 °F	
--	•	370 °F	ISO 306/B50
	•	381 °F	
Electrical	Nominal Value	Unit	Test Method
Dielectric Constant (10 MHz)	3.10		ASTM D150
Dielectric Constant (10 MHz)	3.10		IEC 60250
Arc Resistance ⁷	140	sec	ASTM D495
Dielectric Loss - Tangent ⁸			
--	0.0200		ASTM D150
--	0.0200		IEC 60250
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.028 in)	HB		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer	212	°F
Hot Air Dryer	212	°F
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	410 to 428	°F
Middle Temperature	437 to 446	°F
Front Temperature	464 to 482	°F
Nozzle Temperature	482	°F
Mold Temperature	140 to 248	°F
Injection Pressure	7110 to 35600	psi
Back Pressure	71.1 to 284	psi
Screw Speed	50 to 150	rpm

Injection Notes

Hot Runner Temperature: 250°C

Notes

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

² 2.0 in/min

³ 0.20 in/min

⁴ 0.11 in/min

⁵ 0.079 in/min

⁶ 4mm

⁷ Tungsten electrode

⁸ 10E6Hz