

Infino TK-2046P

Lotte Chemical Corporation - Polycyclohexylenedimethylene Terephthalate

General Information

General			
Filler / Reinforcement	• Glass Fiber		
Properties ¹			
Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.61		ASTM D792
Density (Natural)	1.61	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/2.16 kg)	55	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (300°C/2.16 kg)	55	g/10 min	ISO 1133
Molding Shrinkage - Flow (0.126 in)	5.0E-3 to 8.0E-3	in/in	ASTM D955
Molding Shrinkage - Across Flow (0.126 in)	5.0E-3 to 8.0E-3	in/in	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow : 0.0787 in	0.50 to 0.80	%	
Flow : 0.0787 in	0.50 to 0.80	%	
Ash Content			
--	43	%	ASTM D5630
--	43	%	ISO 3451
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ²	697000	psi	ASTM D638
Tensile Modulus	653000	psi	ISO 527-1/5
Tensile Strength ² (Yield)	10500	psi	ASTM D638
Tensile Stress (Yield)	9430	psi	ISO 527-2/5
Tensile Strength ² (Break)	10500	psi	ASTM D638
Tensile Stress (Break)	9430	psi	ISO 527-2/5
Tensile Elongation ² (Break)	2.2	%	ASTM D638
Tensile Strain (Break)	1.7	%	ISO 527-2/5
Flexural Modulus ³	925000	psi	ASTM D790
Flexural Modulus ⁴	972000	psi	ISO 178
Flexural Strength ³	15600	psi	ASTM D790
Flexural Stress ⁴	13800	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁵ (73°F)	1.9	ft·lb/in ²	ISO 179/1eA
	9.5		
Notched Izod Impact			ASTM D256
	73°F, 0.125 in	0.73	
73°F, 0.250 in	0.55	ft·lb/in	
	3.5		
Notched Izod Impact Strength ⁵ (73°F)	1.4	ft·lb/in ²	ISO 180/1A
Unnotched Izod Impact (23°F, 0.125 in)	4.7	ft·lb/in	ASTM D4812
Unnotched Izod Impact Strength ⁵ (73°F)	6.2	ft·lb/in ²	ISO 180/1U
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	118		ASTM D785

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Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	118		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 264 psi, Unannealed, 0.252 in	482	°F	ASTM D648
Deflection Temperature Under Load 264 psi, Unannealed, 0.157 in	482	°F	ISO 75-2/A
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.06 in		HB	
0.12 in		HB	
Optical	Nominal Value	Unit	Test Method
Yellowness Index (0.126 in)	5.0	YI	ASTM D1925
Additional Information	Nominal Value	Unit	Test Method
Initial Reflectance	92	%	ASTM E1331

Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer	176 to 212	°F
Hot Air Dryer	212	°F
Drying Time		
Desiccant Dryer	4.0	hr
Hot Air Dryer	4.0	hr
Suggested Max Moisture	0.060	%
Rear Temperature	554 to 572	°F
Middle Temperature	572	°F
Front Temperature	581 to 590	°F
Nozzle Temperature	581 to 590	°F
Mold Temperature	122 to 284	°F
Injection Pressure	1140 to 1850	psi
Back Pressure	1140 to 1850	psi
Screw Speed	180 to 250	rpm

Injection Notes

Hot Runner Temperature: 0°C

Notes

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

² 0.20 in/min

³ 0.11 in/min

⁴ 0.079 in/min

⁵ 4mm