

Infino HM-4500G

LOTTE ADVANCED MATERIALS CO., LTD. - Polyphthalamide

Saturday, January 18, 2020

General Information

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.58	g/cm ³	ASTM D792
Density (Natural)	1.58	g/cm ³	ISO 1183
Molding Shrinkage - Flow (3.20 mm)	0.20 to 0.50	%	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	0.20 to 0.50	%	
Ash Content			
--	50	%	ASTM D5630
--	50	%	ISO 3451
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ² (Yield)	250	MPa	ASTM D638
Tensile Stress (Yield)	250	MPa	ISO 527-2/5
Tensile Strength ² (Break)	250	MPa	ASTM D638
Tensile Stress (Break)	250	MPa	ISO 527-2/5
Tensile Elongation ² (Break)	3.0	%	ASTM D638
Tensile Strain (Break)	3.0	%	ISO 527-2/5
Flexural Modulus ³	15000	MPa	ASTM D790
Flexural Modulus ⁴	15000	MPa	ISO 178
Flexural Strength ³	340	MPa	ASTM D790
Flexural Stress ⁴	350	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁵ (23°C)	13	kJ/m ²	ISO 179/1eA
Notched Izod Impact			ASTM D256
23°C, 3.18 mm	130	J/m	
23°C, 6.35 mm	130	J/m	
Notched Izod Impact Strength ⁵ (23°C)	13	kJ/m ²	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	240	°C	

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Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature 1.8 MPa, Unannealed, 4.00 mm	240	°C	ISO 75-2/A
Flammability	Nominal Value	Unit	Test Method
Flame Rating 0.8 mm	HB		UL 94
3.0 mm	HB		

Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer	80 to 100	°C
Hot Air Dryer	100 to 120	°C
Drying Time		
Desiccant Dryer	4.0	hr
Hot Air Dryer	4.0	hr
Suggested Max Moisture	0.050	%
Rear Temperature	260 to 270	°C
Middle Temperature	280 to 290	°C
Front Temperature	290 to 310	°C
Nozzle Temperature	290 to 300	°C
Mold Temperature	60 to 130	°C
Injection Pressure	490 to 2450	MPa
Back Pressure	0.490 to 1.96	MPa
Screw Speed	50 to 150	rpm

Injection Notes

Hot Runner Temperature: 300 to 320°C

Notes

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

² 5.0 mm/min

³ 2.8 mm/min

⁴ 2.0 mm/min

⁵ 4mm