

Infino HX-4452G

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
Melt Mass-Flow Rate (MFR) (330°C/2.16 kg)	8.5	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (330°C/2.16 kg)	8.5	g/10 min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.20 to 0.40	%	ASTM D955
Molding Shrinkage - Across Flow (3.20 mm)	0.40 to 0.60	%	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow : 2.00 mm	0.40 to 0.60	%	
Flow : 2.00 mm	0.20 to 0.40	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ² (Yield)	150	MPa	ASTM D638
Tensile Stress (Yield)	150	MPa	ISO 527-2/50
Tensile Strength ³ (Break)	150	MPa	ASTM D638
Tensile Stress (Break)	150	MPa	ISO 527-2/50
Tensile Elongation ² (Break)	3.0	%	ASTM D638
Tensile Strain (Break)	3.0	%	ISO 527-2/50
Flexural Modulus ⁴	13000	MPa	ASTM D790
Flexural Modulus ⁵	13500	MPa	ISO 178
Flexural Strength ⁴	240	MPa	ASTM D790
Flexural Stress ⁵	240	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁶ (23°C)	6.0	kJ/m ²	ISO 179/1eA
Notched Izod Impact Strength ⁶ (23°C)	6.0	kJ/m ²	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	125		ASTM D785
Rockwell Hardness (R-Scale)	128		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed, 6.40 mm	285	°C	
Heat Deflection Temperature			ISO 75-2/A
1.8 MPa, Unannealed, 4.00 mm	285	°C	
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.4 to 3.2 mm)	V-0		UL 94

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Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer	80	°C
Hot Air Dryer	100	°C
Drying Time		
Desiccant Dryer	4.0	hr
Hot Air Dryer	4.0	hr
Suggested Max Moisture	0.20	%
Rear Temperature	320 to 330	°C
Middle Temperature	320 to 340	°C
Front Temperature	320 to 330	°C
Nozzle Temperature	330	°C
Mold Temperature	100 to 130	°C
Injection Pressure	68.6 to 147	MPa
Back Pressure	0.490 to 0.981	MPa
Screw Speed	200 to 250	rpm

Injection Notes

Hot Runner Temperature: 330°C

Notes

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

² 5.0 mm/min

³ 20 mm/min

⁴ 2.8 mm/min

⁵ 2.0 mm/min

⁶ 4mm