

# Infino HM-4650LW

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 <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.78	g/cm <sup>3</sup>	ASTM D792
Density (Natural)	1.78	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage - Flow (3.20 mm)	0.10 to 0.40	%	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	0.10 to 0.40	%	
Ash Content			
--	65	%	ASTM D5630
--	65	%	ISO 3451
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>2</sup> (Yield)	270	MPa	ASTM D638
Tensile Stress (Yield)	280	MPa	ISO 527-2/5
Tensile Strength <sup>2</sup> (Break)	270	MPa	ASTM D638
Tensile Stress (Break)	280	MPa	ISO 527-2/5
Tensile Elongation <sup>2</sup> (Break)	3.0	%	ASTM D638
Tensile Strain (Break)	3.0	%	ISO 527-2/5
Flexural Modulus <sup>3</sup>	20000	MPa	ASTM D790
Flexural Modulus <sup>4</sup>	20000	MPa	ISO 178
Flexural Strength <sup>3</sup>	380	MPa	ASTM D790
Flexural Stress <sup>4</sup>	390	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength <sup>5</sup> (23°C)	15	kJ/m <sup>2</sup>	ISO 179/1eA
Notched Izod Impact Strength <sup>5</sup> (23°C)	15	kJ/m <sup>2</sup>	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	245	°C	
Heat Deflection Temperature			ISO 75-2/A
1.8 MPa, Unannealed, 4.00 mm	245	°C	

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## LOTTE ADVANCED MATERIALS CO., LTD. - Polyphthalamide

### 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 300	°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°C

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 5.0 mm/min

<sup>3</sup> 2.8 mm/min

<sup>4</sup> 2.0 mm/min

<sup>5</sup> 4mm