

# Infino HM-4650LW

Lotte Chemical Corporation - Polyphthalamide

## General Information

### General

Filler / Reinforcement • Glass Fiber

### Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.78		ASTM D792
Density (Natural)	1.78	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage - Flow (0.126 in)	1.0E-3 to 4.0E-3	in/in	ASTM D955
Molding Shrinkage - Across Flow (0.126 in)	4.0E-3 to 7.0E-3	in/in	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow : 0.0787 in	0.40 to 0.70	%	
Flow : 0.0787 in	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)	39800	psi	ASTM D638
Tensile Stress (Yield)	40600	psi	ISO 527-2/5
Tensile Strength <sup>2</sup> (Break)	39800	psi	ASTM D638
Tensile Stress (Break)	40600	psi	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>	2.84E+6	psi	ASTM D790
Flexural Modulus <sup>4</sup>	2.90E+6	psi	ISO 178
Flexural Strength <sup>3</sup>	55500	psi	ASTM D790
Flexural Stress <sup>4</sup>	56600	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength <sup>5</sup> (73°F)	7.1	ft-lb/in <sup>2</sup>	ISO 179/1eA
Notched Izod Impact			ASTM D256
73°F, 0.125 in	2.8	ft-lb/in	
73°F, 0.250 in	2.8	ft-lb/in	
Notched Izod Impact Strength <sup>5</sup> (73°F)	7.1	ft-lb/in <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
264 psi, Unannealed, 0.252 in	473	°F	
Deflection Temperature Under Load			ISO 75-2/A
264 psi, Unannealed, 0.157 in	473	°F	

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**Processing Information**

<b>Injection</b>	<b>Nominal Value</b>	<b>Unit</b>
Drying Temperature		
Desiccant Dryer	176 to 212	°F
Hot Air Dryer	212 to 248	°F
Drying Time		
Desiccant Dryer	4.0	hr
Hot Air Dryer	4.0	hr
Suggested Max Moisture	0.050	%
Rear Temperature	500 to 518	°F
Middle Temperature	536 to 554	°F
Front Temperature	554 to 572	°F
Nozzle Temperature	554 to 572	°F
Mold Temperature	140 to 266	°F
Injection Pressure	71100 to 356000	psi
Back Pressure	71.1 to 284	psi
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> 0.20 in/min

<sup>3</sup> 0.11 in/min

<sup>4</sup> 0.079 in/min

<sup>5</sup> 4mm