

Infino MKD-1016

LOTTE ADVANCED MATERIALS CO., LTD. - Polyamide

Friday, September 20, 2019

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)	1.64	g/cm ³	ASTM D792
Density (Natural)	1.64	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR)			ASTM D1238
275°C/2.16 kg	13	g/10 min	
300°C/1.2 kg	10	g/10 min	
Melt Mass-Flow Rate (MFR)			ISO 1133
275°C/2.16 kg	13	g/10 min	
300°C/1.2 kg	10	g/10 min	
Molding Shrinkage - Flow (3.20 mm)	0.20 to 0.50	%	ASTM D955
Molding Shrinkage - Across Flow (3.20 mm)	0.30 to 0.60	%	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow : 2.00 mm	0.30 to 0.60	%	
Flow : 2.00 mm	0.20 to 0.50	%	
Water Absorption (Saturation, 23°C)	3.9	%	ASTM D570
Water Absorption (Saturation, 23°C)	3.9	%	ISO 62
Ash Content			
--	55	%	ASTM D5630
--	55	%	ISO 3451

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ²	19000	MPa	ASTM D638
Tensile Modulus	18600	MPa	ISO 527-2/50
Tensile Strength ² (Yield)	260	MPa	ASTM D638
Tensile Stress (Yield)	260	MPa	ISO 527-2/5
Tensile Strength ² (Break)	260	MPa	ASTM D638
Tensile Stress (Break)	260	MPa	ISO 527-2/50
Tensile Elongation ² (Break)	4.2	%	ASTM D638
Tensile Strain (Break)	4.2	%	ISO 527-2/5
Flexural Modulus ³	15000	MPa	ASTM D790
Flexural Modulus ⁴	16000	MPa	ISO 178
Flexural Strength ³	330	MPa	ASTM D790
Flexural Stress ⁴	330	MPa	ISO 178

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁵ (23°C)	17	kJ/m ²	ISO 179/1eA

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Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
23°C, 3.18 mm	130	J/m	
23°C, 6.35 mm	120	J/m	
Notched Izod Impact Strength ⁵ (23°C)	17	kJ/m ²	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	121		ASTM D785
Rockwell Hardness (R-Scale)	121		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed, 6.40 mm	250	°C	
Heat Deflection Temperature			ISO 75-2/A
1.8 MPa, Unannealed, 4.00 mm	250	°C	
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.8 mm		HB	
1.5 mm		HB	
3.0 mm		HB	

Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer	80	°C
Hot Air Dryer	100	°C
Drying Time		
Desiccant Dryer	2.0 to 3.0	hr
Hot Air Dryer	2.0 to 4.0	hr
Suggested Max Moisture	< 0.050	%
Rear Temperature	260 to 270	°C
Middle Temperature	280 to 290	°C
Front Temperature	300 to 310	°C
Nozzle Temperature	300	°C
Mold Temperature	60 to 130	°C
Injection Pressure	49.0 to 245	MPa
Back Pressure	0.490 to 1.96	MPa
Screw Speed	50 to 150	rpm

Injection Notes

Hot Runner Temperature: 300°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