Infino VB-5300GS

LOTTE ADVANCED MATERIALS CO., LTD. - Polybutylene Terephthalate

Tuesday, January 21, 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)	1.62	g/cm³	ASTM D792
Density (Natural)	1.64	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (250°C/2.16 kg)	15	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (250°C/2.16 kg)	13	g/10 min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.30 to 0.90	%	ASTM D955
Water Absorption (Saturation, 23°C)	0.060	%	ASTM D570
Ash Content	30	%	ISO 3451
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus [2]	7650	MPa	ASTM D638
Tensile Modulus	8000	MPa	ISO 527-2/50
Tensile Strength [2] (Yield)	127	MPa	ASTM D638
Tensile Stress (Yield)	147	MPa	ISO 527-2/50
Tensile Strength [2] (Break)	127	MPa	ASTM D638
Tensile Stress (Break)	150	MPa	ISO 527-2/50
Tensile Elongation [2] (Break)	3.4	%	ASTM D638
Tensile Strain (Break)	3.6	%	ISO 527-2/50
Flexural Modulus [3]	9610	MPa	ASTM D790
Flexural Modulus [4]	9000	MPa	ISO 178
Flexural Strength [3]	196	MPa	ASTM D790
Flexural Stress [4]	200	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength [5] (23°C)	8.7	kJ/m²	ISO 179/1eA
Notched Izod Impact			ASTM D256
23°C, 3.18 mm	74	J/m	
23°C, 6.35 mm	58	J/m	
Notched Izod Impact Strength [5] (23°C)	8.3	kJ/m²	ISO 180/1A
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	120		ASTM D785
Rockwell Hardness (R-Scale)	117		ISO 2039-2

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed, 6.40 mm	223	°C	
Heat Deflection Temperature			ISO 75-2/B
0.45 MPa, Unannealed, 4.00 mm	222	°C	
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed, 6.40 mm	210	°C	
Heat Deflection Temperature			ISO 75-2/A
1.8 MPa, Unannealed, 4.00 mm	207	°C	
Vicat Softening Temperature			
--	212	°C	ISO 306/B120
--	210	°C	ISO 306/B50

Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.75 mm	V-0		
1.7 mm	V-0		
3.0 mm	V-0		

Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer	100	°C
Hot Air Dryer	100	°C
Drying Time		
Desiccant Dryer	2.0 to 4.0	hr
Hot Air Dryer	4.0 to 6.0	hr
Suggested Max Moisture	< 0.050	%
Rear Temperature	210 to 220	°C
Middle Temperature	225 to 230	°C
Front Temperature	240 to 250	°C
Nozzle Temperature	250	°C
Mold Temperature	60 to 120	°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: 250°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