



# Infino ASF-9810FL

Lotte Chemical Corporation - Polybutylene Terephthalate

Wednesday, June 28, 2023

## General Information

### General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Uses	• Automotive Applications		

## ASTM & ISO Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.31	g/cm <sup>3</sup>	ASTM D792
Density (Natural)	1.31	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (250°C/2.16 kg)	40	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (250°C/2.16 kg)	40	g/10 min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	1.8 to 2.0	%	ASTM D955
Molding Shrinkage - Across Flow (3.20 mm)	1.8 to 2.0	%	ASTM D955
Water Absorption (Saturation, 23°C)	0.40	%	ASTM D570
Water Absorption (Saturation, 23°C)	0.40	%	ISO 62

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus <sup>2</sup>	2300	MPa	ASTM D638
Tensile Modulus	2300	MPa	ISO 527-1/50
Tensile Strength <sup>2</sup> (Yield)	58.8	MPa	ASTM D638
Tensile Stress (Yield)	58.0	MPa	ISO 527-2/50
Tensile Strength <sup>2</sup> (Break)	49.0	MPa	ASTM D638
Tensile Stress (Break)	49.0	MPa	ISO 527-2/50
Tensile Elongation <sup>2</sup> (Break)	50	%	ASTM D638
Tensile Strain (Break)	50	%	ISO 527-2/50
Flexural Modulus <sup>3</sup>	2500	MPa	ASTM D790
Flexural Modulus <sup>4</sup>	2300	MPa	ISO 178
Flexural Strength <sup>3</sup>	83.4	MPa	ASTM D790
Flexural Stress <sup>4</sup>	80.0	MPa	ISO 178

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength <sup>5</sup> (23°C)	5.0	kJ/m <sup>2</sup>	ISO 179/1eA
Notched Izod Impact			ASTM D256
23°C, 3.18 mm	34	J/m	
23°C, 6.35 mm	39	J/m	
Notched Izod Impact Strength <sup>5</sup> (23°C)	4.0	kJ/m <sup>2</sup>	ISO 180/1A

Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	116		ASTM D785
Rockwell Hardness (R-Scale)	116		ISO 2039-2

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed, 6.40 mm	165	°C	

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## Lotte Chemical Corporation - Polybutylene Terephthalate

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed, 4.00 mm	160	°C	ISO 75-2/B
Deflection Temperature Under Load 1.8 MPa, Unannealed, 4.00 mm	60.0	°C	ISO 75-2/A

### Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer	120	°C
Hot Air Dryer	120	°C
Drying Time		
Desiccant Dryer	4.0	hr
Hot Air Dryer	4.0	hr
Suggested Max Moisture	0.040	%
Rear Temperature	220 to 230	°C
Middle Temperature	230 to 240	°C
Front Temperature	240 to 250	°C
Nozzle Temperature	260	°C
Mold Temperature	40 to 80	°C
Injection Pressure	88.3	MPa
Back Pressure	0.981 to 2.94	MPa
Screw Speed	50 to 100	rpm

### Injection Notes

Hot Runner Temperature: 250°C

### Notes

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

<sup>2</sup> 50 mm/min

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

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

<sup>5</sup> 4mm