

Infino ASF-9810FM

Lotte Chemical Corporation - Polybutylene Terephthalate

General Information

General

Uses • Automotive Applications

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.31		ASTM D792
Density (Natural)	1.31	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (250°C/2.16 kg)	60	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (250°C/2.16 kg)	60	g/10 min	ISO 1133
Molding Shrinkage - Flow (0.126 in)	0.015 to 0.018	in/in	ASTM D955
Molding Shrinkage - Across Flow (0.126 in)	0.017 to 0.020	in/in	ASTM D955
Water Absorption (Saturation, 73°F)	0.40	%	ASTM D570
Water Absorption (Saturation, 73°F)	0.40	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ²	334000	psi	ASTM D638
Tensile Modulus	341000	psi	ISO 527-1/50
Tensile Strength ² (Yield)	7820	psi	ASTM D638
Tensile Stress (Yield)	8410	psi	ISO 527-2/50
Tensile Strength ² (Break)	6400	psi	ASTM D638
Tensile Stress (Break)	7110	psi	ISO 527-2/2
Tensile Elongation ² (Break)	50	%	ASTM D638
Tensile Strain (Break)	15	%	ISO 527-2/50
Flexural Modulus ²	377000	psi	ASTM D790
Flexural Modulus ³	336000	psi	ISO 178
Flexural Strength ²	12100	psi	ASTM D790
Flexural Stress ³	11600	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁴ (73°F)	1.7	ft·lb/in ²	ISO 179/1eA
Notched Izod Impact			ASTM D256
73°F, 0.125 in	0.55	ft·lb/in	
73°F, 0.250 in	0.64	ft·lb/in	
Notched Izod Impact Strength ⁴ (73°F)	1.4	ft·lb/in ²	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ASTM D785
M-Scale	86		
R-Scale	116		
Rockwell Hardness (R-Scale)	116		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi, Unannealed, 0.252 in	329	°F	

Infino ASF-9810FM

Lotte Chemical Corporation - Polybutylene Terephthalate

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 66 psi, Unannealed, 0.157 in	320	°F	ISO 75-2/B
Deflection Temperature Under Load 264 psi, Unannealed, 0.157 in	135	°F	ISO 75-2/A
Vicat Softening Temperature	365	°F	ISO 306/B50

Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer	230	°F
Hot Air Dryer	248	°F
Drying Time		
Desiccant Dryer	4.0	hr
Hot Air Dryer	4.0	hr
Suggested Max Moisture	0.040	%
Rear Temperature	446 to 464	°F
Middle Temperature	464 to 482	°F
Front Temperature	482 to 500	°F
Nozzle Temperature	500	°F
Mold Temperature	104 to 176	°F
Injection Pressure	12800	psi
Back Pressure	142 to 284	psi
Screw Speed	30 to 80	rpm

Injection Notes

Hot Runner Temperature: 245°C

Notes

¹ Typical properties: these are not to be construed as specifications.

² 0.20 in/min

³ 0.079 in/min

⁴ 4mm