

Starex BF-0677HF

Lotte Chemical Corporation - Methyl Methacrylate / ABS

Wednesday, March 9, 2022

General Information

General

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

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.13	g/cm ³	ASTM D792
Density (Natural)	1.13	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	19	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	19	g/10 min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.40	%	ASTM D955
Molding Shrinkage - Across Flow (3.20 mm)	0.50	%	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow : 2.00 mm	0.50	%	
Flow : 2.00 mm	0.40	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ²	2400	MPa	ASTM D638
Tensile Modulus	2600	MPa	ISO 527-1/50
Tensile Strength ² (Yield)	47.0	MPa	ASTM D638
Tensile Stress (Yield)	53.0	MPa	ISO 527-2/50
Tensile Strength ² (Break)	29.0	MPa	ASTM D638
Tensile Stress (Break)	38.0	MPa	ISO 527-2/50
Tensile Elongation ² (Break)	15	%	ASTM D638
Tensile Strain (Break)	20	%	ISO 527-2/50
Flexural Modulus ³	2500	MPa	ASTM D790
Flexural Modulus ⁴	2600	MPa	ISO 178
Flexural Strength ³	69.0	MPa	ASTM D790
Flexural Stress ⁴	80.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁵ (23°C)	10	kJ/m ²	ISO 179/1eA
Notched Izod Impact			ASTM D256
23°C, 3.18 mm	120	J/m	
23°C, 6.35 mm	88	J/m	
Notched Izod Impact Strength ⁵ (23°C)	10	kJ/m ²	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	114		ASTM D785
Rockwell Hardness (R-Scale)	116		ISO 2039-2

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Thermal	Nominal Value	Unit	Test Method	
Deflection Temperature Under Load 0.45 MPa, Unannealed, 6.40 mm	93.0	°C	ASTM D648	
Deflection Temperature Under Load 0.45 MPa, Unannealed, 4.00 mm	88.0	°C	ISO 75-2/B	
Deflection Temperature Under Load 1.8 MPa, Unannealed, 6.40 mm	84.0	°C	ASTM D648	
Deflection Temperature Under Load 1.8 MPa, Unannealed, 4.00 mm	76.0	°C	ISO 75-2/A	
Vicat Softening Temperature				
--	• •	99.0 98.0	°C °C	ISO 306/B120
--	• •	96.0 95.0	°C °C	ISO 306/B50

Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.5 mm		HB	
3.0 mm		HB	

Additional Information	Nominal Value	Unit	Test Method
Pencil Hardness ⁶	• •	H H	JIS K5401

Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer	80	°C
Hot Air Dryer	85	°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	190 to 200	°C
Middle Temperature	210 to 220	°C
Front Temperature	230 to 240	°C
Nozzle Temperature	240	°C
Mold Temperature	40 to 80	°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: 240°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
- ⁶ 500g