

# Starex BF-0670T

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 <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.12	g/cm <sup>3</sup>	ASTM D792
Density (Natural)	1.12	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	25	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	24	g/10 min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.30	%	ASTM D955
Molding Shrinkage - Across Flow (3.20 mm)	0.30	%	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow : 2.00 mm	0.40	%	
Flow : 2.00 mm	0.40	%	

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus <sup>2</sup>	2080	MPa	ASTM D638
Tensile Modulus	2500	MPa	ISO 527-1/50
Tensile Strength <sup>2</sup> (Yield)	49.0	MPa	ASTM D638
Tensile Stress (Yield)	52.0	MPa	ISO 527-2/50
Tensile Strength <sup>2</sup> (Break)	36.3	MPa	ASTM D638
Tensile Stress (Break)	36.0	MPa	ISO 527-2/50
Tensile Elongation <sup>2</sup> (Break)	18	%	ASTM D638
Tensile Strain (Break)	22	%	ISO 527-2/50
Flexural Modulus <sup>3</sup>	2350	MPa	ASTM D790
Flexural Modulus <sup>4</sup>	2360	MPa	ISO 178
Flexural Strength <sup>3</sup>	66.7	MPa	ASTM D790
Flexural Stress <sup>4</sup>	70.0	MPa	ISO 178

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength <sup>5</sup> (23°C)	8.0	kJ/m <sup>2</sup>	ISO 179/1eA
Notched Izod Impact			ASTM D256
23°C, 3.18 mm	78	J/m	
23°C, 6.35 mm	64	J/m	
Notched Izod Impact Strength <sup>5</sup> (23°C)	7.4	kJ/m <sup>2</sup>	ISO 180/1A

Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	114		ASTM D785
Rockwell Hardness (R-Scale)	115		ISO 2039-2
Pencil Hardness			JIS K5401
-- <sup>6</sup>		F	
-- <sup>7</sup>		F	

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed, 6.40 mm	90.0	°C	ASTM D648
Deflection Temperature Under Load 0.45 MPa, Unannealed, 4.00 mm	83.0	°C	ISO 75-2/B
Deflection Temperature Under Load 0.45 MPa, Annealed, 4.00 mm	92.0	°C	ISO 75-2/B
Deflection Temperature Under Load 1.8 MPa, Unannealed, 6.40 mm	80.0	°C	ASTM D648
Deflection Temperature Under Load 1.8 MPa, Unannealed, 4.00 mm	72.0	°C	ISO 75-2/A
Deflection Temperature Under Load 1.8 MPa, Annealed, 4.00 mm	86.0	°C	ISO 75-2/A
Vicat Softening Temperature --	92.0	°C	ISO 306/B120
--	92.0	°C	ISO 306/B50
--	90.0	°C	ISO 306/B50

Flammability	Nominal Value	Unit	Test Method
Flame Rating 0.8 mm	HB		UL 94
2.0 mm	HB		
3.0 mm	HB		

### 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

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### Notes

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

<sup>2</sup> 5.0 mm/min

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

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

<sup>5</sup> 4mm

<sup>6</sup> 500g

<sup>7</sup> 1000g

