

## Lotte Chemical Corporation - Acrylonitrile Butadiene Styrene

Wednesday, March 9, 2022

	General I	nformation		
General				
Material Status	Commercial: Active			
Availability	Africa & Middle East	Europe	North America	
Availability	Asia Pacific	<ul> <li>Latin America</li> </ul>		
	ASTM & ISC	D Properties <sup>1</sup>		
Physical		Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural	)	1.04	g/cm <sup>3</sup>	ASTM D792
Density (Natural)	1.04	g/cm <sup>3</sup>	ISO 1183	
Melt Mass-Flow Rate (MFR) (220	6.0	g/10 min	ASTM D1238	
Melt Mass-Flow Rate (MFR) (220	6.0	g/10 min	ISO 1133	
Molding Shrinkage - Flow (3.20 m	0.30 to 0.60	%	ASTM D955	
Molding Shrinkage - Across Flow (3.20 mm)		0.30 to 0.60	%	ASTM D955
Molding Shrinkage				ISO 294-4
Across Flow : 2.00 mm		0.30 to 0.60	%	
Flow : 2.00 mm		0.30 to 0.60	%	
Mechanical		Nominal Value	Unit	Test Method
Tensile Strength <sup>2</sup> (Yield)		46.0	MPa	ASTM D638
Tensile Stress (Yield)		44.0	MPa	ISO 527-2/50
Tensile Strength <sup>2</sup> (Break)		43.0	MPa	ASTM D638
Tensile Elongation <sup>2</sup> (Break)		15	%	ASTM D638
Tensile Strain (Break)		15	%	ISO 527-2/50
Flexural Modulus <sup>3</sup>		2100	MPa	ASTM D790
Flexural Modulus <sup>4</sup>		2250	MPa	ISO 178
Flexural Strength <sup>3</sup>		65.0	MPa	ASTM D790
Flexural Stress <sup>4</sup>	CHEV	72.0	MPa	ISO 178
Impact		Nominal Value	Unit	Test Method
Charpy Notched Impact Strength <sup>5</sup> (23°C)		25	kJ/m²	ISO 179/1eA
Notched Izod Impact (23°C, 6.35 mm)		280	J/m	ASTM D256
Hardness		Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)		106		ASTM D785
Rockwell Hardness (R-Scale)		106		ISO 2039-2
Thermal		Nominal Value	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/B
0.45 MPa, Unannealed, 4.00 mm		97.0	°C	
Deflection Temperature Under Load				ASTM D648
1.8 MPa, Unannealed, 6.40 mm		92.0	°C	



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## Starex BM-0320JM

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Processing Information				
njection	Nominal Value	Unit		
Drying Temperature				
Desiccant Dryer	80 to 90	°C		
Hot Air Dryer	80 to 90	°C		
Drying Time				
Desiccant Dryer	3.0	hr		
Hot Air Dryer	4.0	hr		
Suggested Max Moisture	< 0.10	%		
Rear Temperature	180 to 210	°C		
Middle Temperature	190 to 220	°C		
Front Temperature	210 to 230	°C		
Nozzle Temperature	220 to 250	C		
Mold Temperature	40 to 80	°C		
Injection Pressure	49.0 to 147	MPa		
Back Pressure	0.490 to 1.96	MPa		
Screw Speed	50 to 150	rpm		
njection Notes				

Hot Runner Temperature: 230 to 260°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

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