

# Starex BM-0320 J

Lotte Chemical Corporation - Acrylonitrile Butadiene Styrene

## General Information

### General

Uses • Automotive Applications

### Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.04		ASTM D792
Density (Natural)	1.04	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	4.0	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	4.0	g/10 min	ISO 1133
Molding Shrinkage - Flow (0.126 in)	3.0E-3 to 6.0E-3	in/in	ASTM D955
Molding Shrinkage - Across Flow (0.126 in)	4.0E-3 to 7.0E-3	in/in	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow : 0.0787 in	0.40 to 0.70	%	
Flow : 0.0787 in	0.30 to 0.60	%	
Water Absorption (Saturation, 73°F)	0.30	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus <sup>2</sup>	279000	psi	ASTM D638
Tensile Modulus	305000	psi	ISO 527-1/50
Tensile Strength <sup>2</sup> (Yield)	6120	psi	ASTM D638
Tensile Stress (Yield)	6090	psi	ISO 527-2/50
Tensile Strength <sup>2</sup> (Break)	4840	psi	ASTM D638
Tensile Stress (Break)	4930	psi	ISO 527-2/50
Tensile Elongation <sup>2</sup> (Break)	25	%	ASTM D638
Tensile Strain (Break)	25	%	ISO 527-2/50
Flexural Modulus <sup>3</sup>	280000	psi	ASTM D790
Flexural Modulus <sup>4</sup>	319000	psi	ISO 178
Flexural Strength <sup>3</sup>	8390	psi	ASTM D790
Flexural Stress <sup>4</sup>	9720	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength <sup>5</sup> (73°F)	12	ft·lb/in <sup>2</sup>	ISO 179/1eA
Notched Izod Impact			ASTM D256
73°F, 0.125 in	5.2	ft·lb/in	
73°F, 0.250 in	4.7	ft·lb/in	
Notched Izod Impact Strength <sup>5</sup> (73°F)	12	ft·lb/in <sup>2</sup>	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	98		ASTM D785
Rockwell Hardness (R-Scale)	98		ISO 2039-2

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 66 psi, Unannealed, 0.157 in	208	°F	ISO 75-2/B
Deflection Temperature Under Load 66 psi, Annealed, 0.157 in	217	°F	ISO 75-2/B
Deflection Temperature Under Load 264 psi, Unannealed, 0.252 in	199	°F	ASTM D648
Deflection Temperature Under Load 264 psi, Unannealed, 0.157 in	181	°F	ISO 75-2/A
Deflection Temperature Under Load 264 psi, Annealed, 0.157 in	207	°F	ISO 75-2/A
Vicat Softening Temperature --	223	°F	ISO 306/B120
--	219	°F	ISO 306/B50

**Processing Information**

Injection	Nominal Value	Unit
Drying Temperature Desiccant Dryer	176	°F
Hot Air Dryer	176	°F
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	320 to 356	°F
Middle Temperature	374 to 392	°F
Front Temperature	410 to 428	°F
Nozzle Temperature	446	°F
Mold Temperature	104 to 176	°F
Injection Pressure	7110 to 21300	psi
Back Pressure	71.1 to 284	psi
Screw Speed	50 to 150	rpm

**Injection Notes**

Hot Runner Temperature: 230°C