

# Starex XM-0900

Lotte Chemical Corporation - Acrylonitrile Butadiene Styrene

## General Information

### General

Uses • Appliances

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

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.09		ASTM D792
Density (Natural)	1.09	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	4.5	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	4.5	g/10 min	ISO 1133
Molding Shrinkage - Flow (0.126 in)	3.0E-3	in/in	ASTM D955
Molding Shrinkage - Across Flow (0.126 in)	3.0E-3	in/in	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow : 0.0787 in	0.30	%	
Flow : 0.0787 in	0.30	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus <sup>2</sup>	305000	psi	ASTM D638
Tensile Modulus	276000	psi	ISO 527-1/50
Tensile Strength <sup>2</sup> (Yield)	7110	psi	ASTM D638
Tensile Stress (Yield)	7250	psi	ISO 527-2/50
Tensile Strength <sup>2</sup> (Break)	5510	psi	ASTM D638
Tensile Stress (Break)	4350	psi	ISO 527-2/50
Tensile Elongation <sup>2</sup> (Break)	17	%	ASTM D638
Tensile Strain (Break)	20	%	ISO 527-2/50
Flexural Modulus <sup>3</sup>	319000	psi	ASTM D790
Flexural Modulus <sup>4</sup>	305000	psi	ISO 178
Flexural Strength <sup>3</sup>	10000	psi	ASTM D790
Flexural Stress <sup>4</sup>	10900	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength <sup>5</sup> (73°F)	2.9	ft·lb/in <sup>2</sup>	ISO 179/1eA
Notched Izod Impact			ASTM D256
73°F, 0.125 in	1.5	ft·lb/in	
73°F, 0.250 in	1.3	ft·lb/in	
Notched Izod Impact Strength <sup>5</sup> (73°F)	2.9	ft·lb/in <sup>2</sup>	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	110		ASTM D785
Rockwell Hardness (R-Scale)	113		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi, Unannealed, 0.252 in	198	°F	
Deflection Temperature Under Load			ISO 75-2/B
66 psi, Unannealed, 0.157 in	181	°F	

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 264 psi, Unannealed, 0.252 in	181	°F	ASTM D648
Deflection Temperature Under Load 264 psi, Unannealed, 0.157 in	167	°F	ISO 75-2/A
Vicat Softening Temperature	208	°F	ISO 306/B50

### Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer	176	°F
Hot Air Dryer	185	°F
Drying Time		
Desiccant Dryer	2.0 to 3.0	hr
Hot Air Dryer	2.0 to 3.0	hr
Suggested Max Moisture	0.050	%
Rear Temperature	374 to 392	°F
Middle Temperature	410 to 428	°F
Front Temperature	446 to 464	°F
Nozzle Temperature	464	°F
Mold Temperature	104 to 176	°F
Injection Pressure	7110 to 35600	psi
Back Pressure	71.1 to 284	psi
Screw Speed	50 to 150	rpm

#### Injection Notes

Hot Runner Temperature: 240°C

#### Notes

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

<sup>2</sup> 0.20 in/min

<sup>3</sup> 0.11 in/min

<sup>4</sup> 0.079 in/min

<sup>5</sup> 4mm