

# Starex LX-0957

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)	1.08	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	12	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	12	g/10 min	ISO 1133
Molding Shrinkage - Flow (0.126 in)	2.1E-3 to 2.9E-3	in/in	ASTM D955
Molding Shrinkage - Across Flow (0.126 in)	2.1E-3 to 2.9E-3	in/in	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow : 0.0787 in	0.21 to 0.29	%	
Flow : 0.0787 in	0.21 to 0.29	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus <sup>2</sup>	319000	psi	ASTM D638
Tensile Modulus	334000	psi	ISO 527-1/5
Tensile Strength <sup>2</sup> (Yield)	6540	psi	ASTM D638
Tensile Stress (Yield)	7110	psi	ISO 527-2/5
Tensile Strength <sup>2</sup> (Break)	5550	psi	ASTM D638
Tensile Stress (Break)	5080	psi	ISO 527-2/5
Tensile Elongation <sup>2</sup> (Break)	31	%	ASTM D638
Tensile Strain (Break)	20	%	ISO 527-2/5
Flexural Modulus <sup>3</sup>	377000	psi	ASTM D790
Flexural Modulus <sup>4</sup>	348000	psi	ISO 178
Flexural Strength <sup>3</sup>	9960	psi	ASTM D790
Flexural Stress <sup>4</sup>	11000	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength <sup>5</sup> (73°F)	6.7	ft·lb/in <sup>2</sup>	ISO 179/1eA
Notched Izod Impact			ASTM D256
73°F, 0.125 in	3.2	ft·lb/in	
73°F, 0.250 in	2.8	ft·lb/in	
Notched Izod Impact Strength <sup>5</sup> (73°F)	6.7	ft·lb/in <sup>2</sup>	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	111		ASTM D785
Rockwell Hardness (R-Scale)	114		ISO 2039-2

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 66 psi, Unannealed, 0.252 in	201	°F	ASTM D648
Deflection Temperature Under Load 66 psi, Unannealed, 0.157 in	190	°F	ISO 75-2/B
Deflection Temperature Under Load 264 psi, Unannealed, 0.252 in	185	°F	ASTM D648
Deflection Temperature Under Load 264 psi, Unannealed, 0.157 in	171	°F	ISO 75-2/A
Vicat Softening Temperature			
--	216	°F	ISO 306/B120
	203	°F	ISO 306/B50
--	201	°F	ISO 306/B50
<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Flame Rating (0.05 in)	HB		UL 94

### 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