

# Starex SR-0310

Lotte Chemical Corporation - Acrylonitrile Butadiene Styrene

Properties <sup>1</sup>			
Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.05		ASTM D792
Density	1.05	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)	4.0E-3 to 7.0E-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	0.40 to 0.70	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>2</sup> (Yield)	5830	psi	ASTM D638
Tensile Stress (Yield)	5800	psi	ISO 527-2/50
Flexural Modulus <sup>3</sup>	305000	psi	ASTM D790
Flexural Modulus <sup>4</sup>	363000	psi	ISO 178
Flexural Strength <sup>3</sup>	8960	psi	ASTM D790
Flexural Stress <sup>4</sup>	11300	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength <sup>5</sup> (73°F)	8.1	ft·lb/in <sup>2</sup>	ISO 179/1eA
Notched Izod Impact			ASTM D256
73°F, 0.125 in	3.7	ft·lb/in	
73°F, 0.250 in	3.4	ft·lb/in	
Notched Izod Impact Strength <sup>5</sup> (73°F)	8.1	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)	110		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ISO 75-2/B
66 psi, Annealed, 0.157 in	223	°F	
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed, 0.252 in	199	°F	
Deflection Temperature Under Load			ISO 75-2/A
264 psi, Unannealed, 0.157 in	176	°F	
Deflection Temperature Under Load			ISO 75-2/A
264 psi, Annealed, 0.157 in	216	°F	
Vicat Softening Temperature			
--	225	°F	ISO 306/B120
--	219	°F	ISO 306/B50

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### Lotte Chemical Corporation - Acrylonitrile Butadiene Styrene

Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.06 in		HB	
0.12 in		HB	
0.24 in		HB	

### 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