

# Starex SR-0330M

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)	1.07		ASTM D792
Density (Natural)	1.07	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR)			ASTM D1238
220°C/10.0 kg	3.0	g/10 min	
250°C/2.16 kg	2.0	g/10 min	
Melt Mass-Flow Rate (MFR)			ISO 1133
220°C/10.0 kg	3.0	g/10 min	
250°C/2.16 kg	2.0	g/10 min	
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 Modulus <sup>2</sup>	318000	psi	ASTM D638
Tensile Modulus	338000	psi	ISO 527-1/50
Tensile Strength <sup>2</sup> (Yield)	5970	psi	ASTM D638
Tensile Stress (Yield)	6960	psi	ISO 527-2/50
Tensile Strength <sup>2</sup> (Break)	5830	psi	ASTM D638
Tensile Stress (Break)	6530	psi	ISO 527-2/50
Tensile Elongation <sup>2</sup> (Break)	17	%	ASTM D638
Tensile Strain (Break)	15	%	ISO 527-2/50
Flexural Modulus <sup>3</sup>	320000	psi	ASTM D790
Flexural Modulus <sup>4</sup>	341000	psi	ISO 178
Flexural Strength <sup>3</sup>	9100	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>			ISO 179/1eA
-22°F	4.8	ft·lb/in <sup>2</sup>	
73°F	7.1	ft·lb/in <sup>2</sup>	
Notched Izod Impact			ASTM D256
-22°F, 0.125 in	1.1	ft·lb/in	
-22°F, 0.250 in	1.3	ft·lb/in	
73°F, 0.125 in	2.4	ft·lb/in	
73°F, 0.250 in	2.2	ft·lb/in	

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Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength <sup>5</sup>			ISO 180/1A
-22°F	4.3	ft·lb/in <sup>2</sup>	
73°F	6.7	ft·lb/in <sup>2</sup>	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	113		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	241	°F	
Deflection Temperature Under Load			ISO 75-2/B
66 psi, Unannealed, 0.157 in	234	°F	
Deflection Temperature Under Load			ISO 75-2/B
66 psi, Annealed, 0.157 in	234	°F	
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed, 0.252 in	219	°F	
Deflection Temperature Under Load			ISO 75-2/A
264 psi, Unannealed, 0.157 in	205	°F	
Deflection Temperature Under Load			ISO 75-2/A
264 psi, Annealed, 0.157 in	217	°F	
Vicat Softening Temperature			
--	246	°F	ISO 306/B120
--	244	°F	ISO 306/B50
Optical	Nominal Value	Unit	Test Method
Yellowness Index (0.126 in)	31	YI	ASTM D1925

### Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer	194	°F
Hot Air Dryer	194	°F
Drying Time		
Desiccant Dryer	2.0 to 3.0	hr
Hot Air Dryer	3.0 to 4.0	hr
Suggested Max Moisture	< 0.10	%
Rear Temperature	374 to 419	°F
Middle Temperature	419 to 455	°F
Front Temperature	446 to 482	°F
Nozzle Temperature	464 to 509	°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: 220 to 240°C