



# Starex SR-0310FM

Lotte Chemical Corporation - Acrylonitrile Butadiene Styrene

Wednesday, March 9, 2022

## General Information

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Automotive Specifications	• GM QK 002032 Color: Natural • SUZUKI ABS-HN		

## ASTM & ISO Properties<sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.06		ASTM D792
Density (Natural)	1.06	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	20	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	20	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	%	
Water Absorption (Saturation, 73°F)	0.30	%	ASTM D570
Water Absorption (Saturation, 73°F)	0.30	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	348000	psi	ISO 527-1/50
Tensile Strength <sup>2</sup> (Yield)	5660	psi	ASTM D638
Tensile Stress (Yield)	7250	psi	ISO 527-2/50
Tensile Stress (Break)	5220	psi	ISO 527-2/50
Tensile Elongation <sup>2</sup> (Break)	35	%	ASTM D638
Tensile Strain (Break)	35	%	ISO 527-2/50
Flexural Modulus <sup>3</sup>	305000	psi	ASTM D790
Flexural Modulus <sup>4</sup>	377000	psi	ISO 178
Flexural Strength <sup>3</sup>	9140	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)	9.5	ft-lb/in <sup>2</sup>	ISO 179/1eA
Notched Izod Impact (73°F, 0.250 in)	2.8	ft-lb/in	ASTM D256
Notched Izod Impact Strength <sup>5</sup> (73°F)	9.5	ft-lb/in <sup>2</sup>	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	109		ASTM D785
Rockwell Hardness (R-Scale)	109		ISO 2039-2

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 66 psi, Unannealed, 0.157 in	207	°F	ISO 75-2/B
Deflection Temperature Under Load 66 psi, Annealed, 0.157 in	221	°F	ISO 75-2/B
Deflection Temperature Under Load 264 psi, Unannealed, 0.126 in	194	°F	ASTM D648
Deflection Temperature Under Load 264 psi, Unannealed, 0.252 in	194	°F	ASTM D648
Deflection Temperature Under Load 264 psi, Unannealed, 0.157 in	172	°F	ISO 75-2/A
Deflection Temperature Under Load 264 psi, Annealed, 0.157 in	214	°F	ISO 75-2/A
Vicat Softening Temperature --	223	°F	ISO 306/B120
--	217	°F	ISO 306/B50

### 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 401	°F
Middle Temperature	401 to 437	°F
Front Temperature	437 to 473	°F
Nozzle Temperature	446 to 500	°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 230°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