

Starex SR-0310FM

Lotte Chemical Corporation - Acrylonitrile Butadiene Styrene

General Information

General

Uses • Automotive Applications

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.06		ASTM D792
Density (Natural)	1.06	g/cm ³	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 ² (Yield)	6260	psi	ASTM D638
Tensile Stress (Yield)	7250	psi	ISO 527-2/50
Tensile Stress (Break)	5220	psi	ISO 527-2/50
Tensile Elongation ² (Break)	15	%	ASTM D638
Tensile Strain (Break)	20	%	ISO 527-2/50
Flexural Modulus ³	334000	psi	ASTM D790
Flexural Modulus ⁴	299000	psi	ISO 178
Flexural Strength ³	9100	psi	ASTM D790
Flexural Stress ⁴	11300	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁵ (73°F)	7.6	ft·lb/in ²	ISO 179/1eA
Notched Izod Impact			ASTM D256
73°F, 0.125 in	3.3	ft·lb/in	
73°F, 0.250 in	2.8	ft·lb/in	
Notched Izod Impact Strength ⁵ (73°F)	7.1	ft·lb/in ²	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	109		ASTM D785
Rockwell Hardness (R-Scale)	109		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ISO 75-2/B
66 psi, Unannealed, 0.157 in	198	°F	
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed, 0.252 in	194	°F	

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 264 psi, Unannealed, 0.157 in	180	°F	ISO 75-2/A
Vicat Softening Temperature	223	°F	ISO 306/B120
--	217	°F	ISO 306/B50
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	HB		UL 94

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	9960 to 21300	psi
Back Pressure	71.1 to 284	psi
Screw Speed	50 to 150	rpm

Injection Notes

Hot Runner Temperature: 220 °C