

Starex SP-0183

Lotte Chemical Corporation - Acrylonitrile Butadiene Styrene

General Information

General

Uses • Piping

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.04		ASTM D792
Density (Natural)	1.04	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	3.9	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	3.9	g/10 min	ISO 1133
Molding Shrinkage - Flow (0.126 in)	4.1E-3 to 5.0E-3	in/in	ASTM D955
Molding Shrinkage - Across Flow (0.126 in)	4.7E-3 to 5.8E-3	in/in	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow : 0.0787 in	0.47 to 0.58	%	
Flow : 0.0787 in	0.41 to 0.50	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ²	276000	psi	ASTM D638
Tensile Modulus	290000	psi	ISO 527-1/50
Tensile Strength ² (Yield)	5970	psi	ASTM D638
Tensile Stress (Yield)	6090	psi	ISO 527-2/50
Tensile Strength ² (Break)	4840	psi	ASTM D638
Tensile Stress (Break)	5800	psi	ISO 527-2/50
Tensile Elongation ² (Break)	50	%	ASTM D638
Tensile Strain (Break)	14	%	ISO 527-2/50
Flexural Modulus ³	290000	psi	ASTM D790
Flexural Modulus ⁴	290000	psi	ISO 178
Flexural Strength ³	9100	psi	ASTM D790
Flexural Stress ⁴	9280	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, 0.250 in)	7.5	ft-lb/in	ASTM D256
Notched Izod Impact Strength ⁵ (73°F)	19	ft-lb/in ²	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	100		ASTM D785
Rockwell Hardness (R-Scale)	100		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ISO 75-2/B
66 psi, Unannealed, 0.157 in	201	°F	
Deflection Temperature Under Load			ISO 75-2/B
66 psi, Annealed, 0.157 in	216	°F	
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed, 0.252 in	196	°F	

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 264 psi, Unannealed, 0.157 in	178	°F	ISO 75-2/A
Deflection Temperature Under Load 264 psi, Annealed, 0.157 in	212	°F	ISO 75-2/A
Vicat Softening Temperature	214	°F	ISO 306/B50

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