

Starex SG-0790 T

Lotte Chemical Corporation - Acrylonitrile Butadiene Styrene

General Information

General

Uses • Toys

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) (200°C/5.0 kg)	5.5	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	5.5	g/10 min	ISO 1133
Molding Shrinkage - Flow (0.126 in)	3.8E-3 to 4.7E-3	in/in	ASTM D955
Molding Shrinkage - Across Flow (0.126 in)	4.0E-3 to 4.9E-3	in/in	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow : 0.0787 in	0.40 to 0.49	%	
Flow : 0.0787 in	0.38 to 0.47	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ²	275000	psi	ASTM D638
Tensile Strength ² (Yield)	5970	psi	ASTM D638
Tensile Stress (Yield)	6090	psi	ISO 527-2/50
Tensile Strength ² (Break)	4980	psi	ASTM D638
Tensile Elongation ² (Break)	100	%	ASTM D638
Flexural Modulus ³	218000	psi	ASTM D790
Flexural Modulus ⁴	319000	psi	ISO 178
Flexural Strength ³	7110	psi	ASTM D790
Flexural Stress ⁴	8990	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
73°F, 0.125 in	5.4	ft-lb/in	
73°F, 0.250 in	4.9	ft-lb/in	
Notched Izod Impact Strength ⁵ (73°F)	7.6	ft-lb/in ²	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			ASTM D648
264 psi, Unannealed, 0.252 in	174	°F	
Vicat Softening Temperature	207	°F	ISO 306/B50
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.06 in		HB	
0.12 in		HB	
0.24 in		HB	

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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