

# Starex HP-0500

Lotte Chemical Corporation - Acrylonitrile Butadiene Styrene

## General Information

### General

Uses • Appliances

## Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.05		ASTM D792
Density (Natural)	1.05	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	16	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	16	g/10 min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus <sup>2</sup>	377000	psi	ASTM D638
Tensile Modulus	377000	psi	ISO 527-1/50
Tensile Strength <sup>2</sup> (Yield)	6830	psi	ASTM D638
Tensile Stress (Yield)	5800	psi	ISO 527-2/50
Tensile Strength <sup>2</sup> (Break)	2840	psi	ASTM D638
Tensile Stress (Break)	5950	psi	ISO 527-2/50
Tensile Elongation <sup>2</sup> (Break)	39	%	ASTM D638
Tensile Strain (Break)	11	%	ISO 527-2/50
Flexural Modulus <sup>3</sup>	334000	psi	ASTM D790
Flexural Modulus <sup>4</sup>	319000	psi	ISO 178
Flexural Strength <sup>3</sup>	9960	psi	ASTM D790
Flexural Stress <sup>4</sup>	8700	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength <sup>5</sup> (73°F)	6.7	ft·lb/in <sup>2</sup>	ISO 179/1eA
Notched Izod Impact			ASTM D256
73°F, 0.125 in	2.4	ft·lb/in	
73°F, 0.250 in	2.4	ft·lb/in	
Notched Izod Impact Strength <sup>5</sup> (73°F)	6.2	ft·lb/in <sup>2</sup>	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	114		ASTM D785
Rockwell Hardness (R-Scale)	114		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi, Unannealed, 0.252 in	210	°F	
Deflection Temperature Under Load			ISO 75-2/B
66 psi, Unannealed, 0.157 in	205	°F	
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed, 0.252 in	196	°F	
Deflection Temperature Under Load			ISO 75-2/A
264 psi, Unannealed, 0.157 in	180	°F	
Vicat Softening Temperature	212	°F	ISO 306/B50

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Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)		HB	UL 94

### 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