Starex NH-1904

Lotte Chemical Corporation - High Impact Polystyrene

General Information

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.11		ASTM D792
Density (Natural)	1.11	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	44	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	44	g/10 min	ISO 1133
Molding Shrinkage - Flow (0.126 in)	4.0E-3 to 7.0E-3	in/in	ASTM D955
Molding Shrinkage - Flow (0.0787 in)	0.40 to 0.70	%	ISO 294-4
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus [2]	319000	psi	ASTM D638
Tensile Modulus	334000	psi	ISO 527-1/5
Tensile Strength [2] (Yield)	5970	psi	ASTM D638
Tensile Stress (Yield)	6530	psi	ISO 527-2/5
Tensile Strength [2] (Break)	5800	psi	ASTM D638
Tensile Stress (Break)	6380	psi	ISO 527-2/5
Tensile Elongation [2] (Break)	15	%	ASTM D638
Tensile Strain (Break)	15	%	ISO 527-2/5
Flexural Modulus [3]	348000	psi	ASTM D790
Flexural Modulus [4]	392000	psi	ISO 178
Flexural Strength [3]	9570	psi	ASTM D790
Flexural Stress [4]	9860	psi	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength [5] (73°F)	3.3	ft·lb/in²	ISO 179/1eA
Notched Izod Impact			ASTM D256
73°F, 0.125 in	1.3	ft·lb/in	
73°F, 0.250 in	0.73	ft·lb/in	
Notched Izod Impact Strength [5] (73°F)	3.3	ft·lb/in²	ISO 180/1A
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed, 0.252 in	174	°F	
Deflection Temperature Under Load			ISO 75-2/A
264 psi, Unannealed, 0.157 in	162	°F	
Vicat Softening Temperature	201	°F	ISO 306/B50
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
0.06 in	V-1		
0.10 in	V-0		

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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	392	°F
Middle Temperature	410	°F
Front Temperature	428 to 446	°F
Nozzle Temperature	446	°F
Mold Temperature	104 to 176	°F
Injection Pressure	7110 to 35600	psi
Back Pressure	71.1 to 284	psi
Screw Speed	50 to 150	rpm
Injection Notes		
Hot Runner Temperature: 230°C		

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] 0.20 in/min

[3] 0.11 in/min

[4] 0.079 in/min

[5] 4mm