HK:+852-69575415 China GuangDong:+13538586433 ShangHai:+18816996168

Starex VE-1890 K

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)	1.15		ASTM D792
Density (Natural)	1.15	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	13	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	13	g/10 min	ISO 1133
Molding Shrinkage - Flow (0.126 in)	2.0E-3 to 6.0E-3	in/in	ASTM D955
Molding Shrinkage - Across Flow (0.126 in)	2.0E-3 to 6.0E-3	in/in	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow : 0.0787 in	0.20 to 0.60	%	
Flow : 0.0787 in	0.20 to 0.60	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	305000	psi	ISO 527-1/50
Tensile Strength [2] (Yield)	2840	psi	ASTM D638
Tensile Stress (Yield)	3480	psi	ISO 527-2/50
Tensile Stress (Break)	2900	psi	ISO 527-2/50
Tensile Strain (Break)	33	%	ISO 527-2/50
Flexural Modulus [3]	235000	psi	ASTM D790
Flexural Modulus [4]	247000	psi	ISO 178
Flexural Strength [3]	3700	psi	ASTM D790
Flexural Stress [4]	5370	psi	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength [5] (73°F)	5.0	ft·lb/in²	ISO 179/1eA
Notched Izod Impact (73°F, 0.125 in)	1.8	ft·lb/in	ASTM D256
Notched Izod Impact Strength [5] (73°F)	5.2	ft·lb/in²	ISO 180/1A
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	96		ASTM D785
Rockwell Hardness (R-Scale)	96		ISO 2039-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ISO 75-2/B
66 psi, Unannealed, 0.157 in	174	°F	
Deflection Temperature Under Load			ISO 75-2/B
66 psi, Annealed, 0.157 in	183	°F	
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed, 0.252 in	162	°F	
Deflection Temperature Under Load			ISO 75-2/A
264 psi, Unannealed, 0.157 in	154	°F	
Deflection Temperature Under Load			ISO 75-2/A
264 psi, Annealed, 0.157 in	174	°F	

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Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature			
--	185	°F	ISO 306/B120
--	180	°F	ISO 306/B50

Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.06 in	V-1		
0.08 in	V-0		

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 to 410	°F
Middle Temperature	410 to 428	°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 to 250°C

Notes

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

[2] 0.79 in/min

[3] 0.11 in/min

[4] 0.079 in/min

[5] 4mm