Starex VG-4920F

Lotte Chemical Corporation - Acrylonitrile Butadiene Styrene

General Information

General	
Filler / Reinforcement	• Glass Fiber
Uses	• Bathroom Accessories

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.33		ASTM D792
Density (Natural)	1.34	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	42	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	41	g/10 min	ISO 1133
Molding Shrinkage - Flow (0.126 in)	1.0E-3 to 3.0E-3	in/in	ASTM D955
Ash Content	20	%	ISO 3451
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus [2]	853000	psi	ASTM D638
Tensile Modulus	885000	psi	ISO 527-1/50
Tensile Strength [2] (Yield)	12400	psi	ASTM D638
Tensile Stress (Yield)	14800	psi	ISO 527-2/50
Tensile Strength [2] (Break)	14200	psi	ASTM D638
Tensile Stress (Break)	14600	psi	ISO 527-2/50
Tensile Elongation [2] (Break)	2.8	%	ASTM D638
Tensile Strain (Break)	2.4	%	ISO 527-2/50
Flexural Modulus [3]	825000	psi	ASTM D790
Flexural Modulus [4]	1.03E+6	psi	ISO 178
Flexural Strength [3]	14900	psi	ASTM D790
Flexural Stress [4]	21200	psi	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength [5] (73°F)	4.4	ft·lb/in²	ISO 179/1eA
Notched Izod Impact			ASTM D256
73°F, 0.125 in	1.1	ft·lb/in	
73°F, 0.250 in	1.1	ft·lb/in	
Notched Izod Impact Strength [5] (73°F)	4.3	ft·lb/in²	ISO 180/1A
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	110		ASTM D785
Rockwell Hardness (R-Scale)	116		ISO 2039-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
66 psi, Unannealed, 0.252 in	212	°F	
Deflection Temperature Under Load			ISO 75-2/B
66 psi, Unannealed, 0.157 in	212	°F	
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed, 0.252 in	199	°F	

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ISO 75-2/A
264 psi, Unannealed, 0.157 in	203	°F	
Vicat Softening Temperature			
--	• 216 • 219	°F	ISO 306/B120
--	• 214 • 216	°F	ISO 306/B50

Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.06 in	V-0		
0.08 in	• V-0 • 5VA		
0.12 in	• V-0 • 5VA		

Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer	176	°F
Hot Air Dryer	176	°F
Drying Time		
Desiccant Dryer	2.0	hr
Hot Air Dryer	2.0	hr
Suggested Max Moisture	0.050 to 0.070	%
Rear Temperature	428	°F
Middle Temperature	428	°F
Front Temperature	446	°F
Nozzle Temperature	464	°F
Mold Temperature	140	°F
Injection Pressure	13500	psi
Back Pressure	71.1 to 427	psi
Screw Speed	50 to 100	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