

Starex VG-4910

Lotte Chemical Corporation - Acrylonitrile Butadiene Styrene

General Information

General

Filler / Reinforcement • Glass Fiber

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.12		ASTM D792
Density (Natural)	1.12	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	23	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	23	g/10 min	ISO 1133
Molding Shrinkage - Flow (0.126 in)	1.0E-3 to 3.0E-3	in/in	ASTM D955
Molding Shrinkage - Flow (0.0787 in)	0.10 to 0.30	%	ISO 294-4
Ash Content	10	%	ISO 3451
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ²	540000	psi	ASTM D638
Tensile Strength ² (Yield)	10700	psi	ASTM D638
Tensile Stress (Yield)	12300	psi	ISO 527-2/50
Tensile Strength ² (Break)	11000	psi	ASTM D638
Tensile Elongation ² (Break)	3.4	%	ASTM D638
Flexural Modulus ³	526000	psi	ASTM D790
Flexural Modulus ⁴	595000	psi	ISO 178
Flexural Strength ³	11400	psi	ASTM D790
Flexural Stress ⁴	14500	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁵ (73°F)	3.3	ft-lb/in ²	ISO 179/1eA
Notched Izod Impact			ASTM D256
73°F, 0.125 in	1.3	ft-lb/in	
73°F, 0.250 in	2.2	ft-lb/in	
Notched Izod Impact Strength ⁵ (73°F)	3.3	ft-lb/in ²	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	109		ASTM D785
Rockwell Hardness (R-Scale)	109		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi, Unannealed, 0.252 in	216	°F	
Deflection Temperature Under Load			ISO 75-2/B
66 psi, Unannealed, 0.157 in	214	°F	
Deflection Temperature Under Load			ISO 75-2/B
66 psi, Annealed, 0.157 in	214	°F	
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed, 0.252 in	207	°F	

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 264 psi, Unannealed, 0.157 in	198	°F	ISO 75-2/A
Deflection Temperature Under Load 264 psi, Annealed, 0.157 in	207	°F	ISO 75-2/A
Vicat Softening Temperature	210	°F	ISO 306/B50
Flammability	Nominal Value	Unit	Test Method
Flame Rating 0.06 in		V-0	UL 94
0.10 in	•	V-0	
	•	5VA	
0.12 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	356 to 374	°F
Middle Temperature	392 to 410	°F
Front Temperature	428 to 446	°F
Nozzle Temperature	464	°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: 235°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