Starex WR-9120

Lotte Chemical Corporation - Acrylonitrile Styrene Acrylate

General Information

General

Uses	• Construction Applications

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.06		ASTM D792
Density (Natural)	1.06	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	17	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	17	g/10 min	ISO 1133
Molding Shrinkage - Flow (0.126 in)	4.0E-3 to 4.9E-3	in/in	ASTM D955
Molding Shrinkage - Across Flow (0.126 in)	4.2E-3 to 5.2E-3	in/in	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow : 0.0787 in	0.42 to 0.52	%	
Flow : 0.0787 in	0.40 to 0.49	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus [2]	293000	psi	ASTM D638
Tensile Modulus	319000	psi	ISO 527-1/50
Tensile Strength [2] (Yield)	6830	psi	ASTM D638
Tensile Stress (Yield)	6820	psi	ISO 527-2/50
Tensile Strength [2] (Break)	5690	psi	ASTM D638
Tensile Stress (Break)	4930	psi	ISO 527-2/50
Tensile Elongation [2] (Break)	50	%	ASTM D638
Tensile Strain (Break)	18	%	ISO 527-2/50
Flexural Modulus [3]	319000	psi	ASTM D790
Flexural Modulus [4]	305000	psi	ISO 178
Flexural Strength [3]	9670	psi	ASTM D790
Flexural Stress [4]	9720	psi	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength [5] (73°F)	7.6	ft·lb/in²	ISO 179/1eA
Notched Izod Impact (73°F, 0.125 in)	3.7	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)	106		ASTM D785
Rockwell Hardness (R-Scale)	106		ISO 2039-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ISO 75-2/B
66 psi, Unannealed, 0.157 in	194	°F	
Deflection Temperature Under Load			ISO 75-2/B
66 psi, Annealed, 0.157 in	210	°F	
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed, 0.252 in	181	°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	162	°F	
Deflection Temperature Under Load			ISO 75-2/A
264 psi, Annealed, 0.157 in	203	°F	
Vicat Softening Temperature	208	°F	ISO 306/B50
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (0.06 in)	HB		UL 94
Optical	**Nominal Value**	**Unit**	**Test Method**
Yellowness Index (0.126 in)	26	YI	ASTM D1925

Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer	176	°F
Hot Air Dryer	176 to 194	°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: 240°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