

Starex WR-9300HF

Lotte Chemical Corporation - Acrylonitrile Styrene Acrylate

General Information

General	
Uses	<ul style="list-style-type: none"> Automotive Applications

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.07		ASTM D792
Density (Natural)	1.07	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR)			ASTM D1238
220°C/10.0 kg	12	g/10 min	
250°C/2.16 kg	6.5	g/10 min	
Melt Mass-Flow Rate (MFR)			ISO 1133
220°C/10.0 kg	12	g/10 min	
250°C/2.16 kg	6.5	g/10 min	
Molding Shrinkage - Flow (0.126 in)	4.0E-3 to 7.0E-3	in/in	ASTM D955
Molding Shrinkage - Across Flow (0.126 in)	4.0E-3 to 7.0E-3	in/in	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow	0.40 to 0.70	%	
Flow	0.40 to 0.70	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ² (Yield)	6400	psi	ASTM D638
Tensile Stress (Yield)	6380	psi	ISO 527-2/5
Tensile Elongation ² (Break)	15	%	ASTM D638
Flexural Modulus ³	313000	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)	6.2	ft·lb/in ²	ISO 179/1eA
Notched Izod Impact			ASTM D256
-22°F, 0.125 in	0.64	ft·lb/in	
-22°F, 0.250 in	0.83	ft·lb/in	
73°F, 0.125 in	2.8	ft·lb/in	
73°F, 0.250 in	1.8	ft·lb/in	
Notched Izod Impact Strength ⁵			ISO 180/1A
-22°F	2.6	ft·lb/in ²	
73°F	5.7	ft·lb/in ²	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	106		ASTM D785
Rockwell Hardness (R-Scale)	106		ISO 2039-2

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi, Unannealed, 0.126 in	187	°F	
66 psi, Unannealed, 0.252 in	198	°F	
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed, 0.126 in	163	°F	
264 psi, Unannealed, 0.252 in	189	°F	
Deflection Temperature Under Load			ISO 75-2/A
264 psi, Unannealed, 0.157 in	176	°F	
Vicat Softening Temperature	212	°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)	25	YI	ASTM D1925

Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer	167 to 185	°F
Hot Air Dryer	167 to 185	°F
Drying Time		
Desiccant Dryer	2.0 to 4.0	hr
Hot Air Dryer	2.0 to 4.0	hr
Suggested Max Moisture	0.050	%
Rear Temperature	374 to 401	°F
Middle Temperature	401 to 437	°F
Front Temperature	437 to 473	°F
Nozzle Temperature	473	°F
Mold Temperature	122 to 158	°F
Injection Pressure	7110 to 35600	psi
Back Pressure	71.1 to 284	psi
Screw Speed	50 to 90	rpm

Injection Notes

Hot Runner Temperature: 230 to 260°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