

Starex WX-9950UV

Lotte Chemical Corporation - Acrylonitrile Styrene Acrylate + Acrylic (PMMA)

Properties ¹			
Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.16		ASTM D792
Density (Natural)	1.16	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	5.0	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	5.0	g/10 min	ISO 1133
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
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ²	370000	psi	ASTM D638
Tensile Modulus	348000	psi	ISO 527-1/50
Tensile Strength ² (Yield)	9100	psi	ASTM D638
Tensile Stress (Yield)	9430	psi	ISO 527-2/50
Tensile Strength ² (Break)	8530	psi	ASTM D638
Tensile Stress (Break)	7110	psi	ISO 527-2/50
Tensile Elongation ² (Break)	20	%	ASTM D638
Tensile Strain (Break)	20	%	ISO 527-2/50
Flexural Modulus ³	327000	psi	ASTM D790
Flexural Modulus ⁴	377000	psi	ISO 178
Flexural Strength ³	11100	psi	ASTM D790
Flexural Stress ⁴	13100	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁵ (73°F)	1.9	ft·lb/in ²	ISO 179/1eA
Notched Izod Impact			ASTM D256
-22°F, 0.125 in	0.37	ft·lb/in	
-22°F, 0.250 in	0.33	ft·lb/in	
73°F, 0.125 in	0.73	ft·lb/in	
73°F, 0.250 in	0.73	ft·lb/in	
Notched Izod Impact Strength ⁵ (73°F)	1.9	ft·lb/in ²	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	118		ASTM D785
Rockwell Hardness (R-Scale)	118		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed, 0.252 in	185	°F	
Deflection Temperature Under Load			ISO 75-2/A
264 psi, Unannealed, 0.157 in	171	°F	
Vicat Softening Temperature	216	°F	ISO 306/B50

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Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer	194	°F
Hot Air Dryer	194	°F
Drying Time		
Desiccant Dryer	2.0 to 4.0	hr
Hot Air Dryer	4.0	hr
Suggested Max Moisture	0.050	%
Rear Temperature	428 to 446	°F
Middle Temperature	446 to 464	°F
Front Temperature	464 to 482	°F
Nozzle Temperature	482	°F
Mold Temperature	122 to 176	°F
Injection Pressure	1420	psi
Back Pressure	71.1 to 356	psi
Screw Speed	50 to 80	rpm

Injection Notes

Hot Runner Temperature: 230 to 250 °C

Notes

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

² 2.0 in/min

³ 0.11 in/min

⁴ 0.079 in/min

⁵ 4mm