



HSM Wire International, Inc

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Alloy 904L

Description: Alloy 904L is a non-stabilized low carbon high alloy austenitic stainless steel. The addition of copper to this grade gives it greatly improved resistance to strong reducing acids. It is also highly resistant to chloride attack -both pitting and crevice corrosion cracking.

Applications: Used as components in and around the Oil and Gas Industry, and Paper and pulp industry.

Nominal Composition:	Ni	Mo	Cr	Cu	C	Mn	S
	23 - 28	4 - 5	19 - 23	1 - 2	0.02 max	2.0 max	0.035 max
	Si	P	Fe				
	1.0 max	0.045 max	Balance*	* By difference			

Mechanical and Physical Properties

	Metric Units	
Density	7,950 Kg/cu meter (0.287 lbs/cu in.)	
Specific Gravity	7.95	
Tensile Strength	88,000 psi (605 GPa)	
Yield Strength (0.2% offset)	39,500 psi (270 GPa)	
Elongation	50%	
Average Coefficient of Thermal Expansion	68 - 212°F	8.5 x 10 /°F
	68 - 750°F	9.2 x 10 /°F
	68 - 1475°F	10.1 x 10 /°F
	20 - 100°C	15.3 x 10 /°C
	20 - 400°C	16.5 x 10 /°C
	20 - 800°C	18.2 x 10 /°C
Solidus	2480 °F	
Liquidus	2570 °F	
Heat Capacity	0.107 Btu/Lb-°F	
Thermal Conductivity	77.7 Btu-in/hr-sq.ft.- °F	

*To be used as a guideline only.

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