

Nickel-Copper 400, NiCu30Fe

Alloy 400

Identification

VMI No.	400				
UNS No.	N04400				
Relevant Specifications	ASTM B127, FED QQN-281				
Forms	Strip	Wire	Bar	Sheet	
	*	*	*	*	
Description	Alloy 400 is a strong and tough alloy over a large temperature range. It also has excellent corrosion resistance from many different chemical attacks. These properties make Alloy 400 great for high temperature and corrosive environments.				

Chemical Composition (%)

Nickel (+ Cobalt)	63-70
Copper	Remainder
Iron	2.50 Max
Manganese	2.00 Max
Carbon	0.3 Max
Silicon	0.50 Max

Mechanical Properties (all values are for annealed temper; not intended for specification)

Tensile	70-85 ksi
	485-585 MPa
Yield	>28 ksi
	>195 MPa
Elongation	>35 % in 2"
	>35 % in 50mm
Hardness	<76 HRB
	<140 Hv

Physical Properties

Density	0.3237 lb/in ³
	8.960 g/cm ³
Resistivity (Nominal)	307 Ohm•circ mil/ft
	51.00 microOhm•cm
Coefficient of Thermal Expansion from 68°F (20°C) to (micro-in/in-°F) (micro-m/m-K)	212°F 392°F 572°F 752°F 932°F
	100°C 200°C 300°C 400°C 500°C
	7.72 8.61 8.78 8.89 9.33
	13.9 15.5 15.8 16 16.8



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