

Alloy 600

Alloy 600 - NiCr Solid Solution Strengthened

Identification

VMI No.	600			
UNS No.	N06600			
Relevant Specifications	ASTM B168, AMS 5540, Din 17750			
Forms	Strip	Wire	Bar	Sheet
	*	*	*	*
Description	Alloy 600 is a high-strength alloy that also has great workability. It is commonly used in applications that require superior heat & corrosion resistance.			

Chemical Composition (%)

Nickel (+ Cobalt)	72 Min
Chromium	14.0-17.0
Iron	6.0-10.0
Manganese	1.0 Max
Copper	0.50 Max
Silicon	0.50 Max
Carbon	0.15 Max

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

Tensile	90 ksi
	620 MPa
Yield	45 ksi
	310 MPa
Elongation	40 % in 2"
	40 % in 50mm
Hardness	<88 HRB
	<185 Hv

Physical Properties

Density	0.3035 lb/in ³				
	8.40088 g/cm ³				
Resistivity (Nominal)	620 Ohm•circ mil/ft				
	103 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
	7.4	7.7	7.9	8.1	8.3
	13.3	13.8	14.2	14.5	14.9



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