

# STAINLESS STEEL

# ALLOY 600

(UNS N06600)

## TUBING APPLICATIONS

Alloy 600 is a nickel-chromium alloy with good oxidation resistance at higher temperatures, ranging from cryogenic to 2000°F.

Alloy 600 has great workability, weldability and high strength. The high nickel content makes it resistant to many organic and inorganic compounds and offers good corrosion resistance in reducing conditions.

## AVAILABLE TUBE PRODUCT FORMS

STRAIGHT  
SEAMLESS

## TYPICAL MANUFACTURING SPECIFICATIONS

ATSM B163      AMS 4480  
ATSM B167      BS 3074

Also individual customer specifications.

## TYPICAL APPLICATIONS

Heat Exchangers  
Thermocouples  
Control and Instrumentation Tubes

## INDUSTRIES PREDOMINANTLY USING THIS GRADE

CHEMICAL PROCESSES  
NUCLEAR AND POWER

## TECHNICAL DATA

### MECHANICAL PROPERTIES

Temper	Annealed	
	Tensile Rm	110
Tensile Rm	738	MPa (min)
R.p. 0.2% Yield	37	ksi (min)
R.p. 0.2% Yield	255	MPa (min)
Elongation (2" or 4D gl)	45	% (min)

### PHYSICAL PROPERTIES (Room Temperature)

Specific Heat (0-100°C)	460	J.kg <sup>-1</sup> .°K <sup>-1</sup>
Thermal Conductivity	14.8	W.m <sup>-1</sup> .°K <sup>-1</sup>
Thermal Expansion	12.4	mm / m / °C
Modulus Elasticity	207	GPa
Electrical Resistivity	10.3	μohm / cm
Density	8.42	g / cm <sup>3</sup>

### CHEMICAL COMPOSITION (% by weight)

Element	Min	Max
C	-	0.15
Si	-	0.5
Mn	-	1
S	-	0.015
Cr	14	17
Cu	-	0.5
Fe	6	10
Ni	72	-

Disclaimer: The information contained within this data sheet is for guidance only and is not intended for warranty of individual application - express or implied.

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GROUP