

# STAINLESS STEEL

# ALLOY C276

(UNS N10276)

## TUBING APPLICATIONS

Alloy C276 is a nickel-molybdenum-chromium superalloy with the addition of tungsten and performs well in a wide range of aggressive environments.

Alloy C276 is considered the most versatile corrosion resistant alloy available. With a high nickel content, the alloy is immune to chloride-induced stress corrosion cracking. It is also ductile, easily formed and highly weldable.

## AVAILABLE TUBE PRODUCT FORMS

STRAIGHT, COILED, SEAMLESS  
SEAM WELDED, COLD DRAWN AND ANNEALED

## TYPICAL MANUFACTURING SPECIFICATIONS

ATSM B622  
ASTM B626

Also individual customer specifications.

## TYPICAL APPLICATIONS

Pollution Control  
Mixed Acid Chemicals  
Pulp and Paper Production  
Waste Treatment  
Very High Chloride Environments

## INDUSTRIES PREDOMINANTLY USING THIS GRADE

CHEMICAL PROCESSES  
OIL AND GAS

## TECHNICAL DATA

### MECHANICAL PROPERTIES

Temper	Annealed	
	Tensile Rm	100
Tensile Rm	690	MPa (min)
R.p. 0.2% Yield	41	ksi (min)
R.p. 0.2% Yield	290	MPa (min)
Elongation (2" or 4D gl)	40	% (min)

### PHYSICAL PROPERTIES (Room Temperature)

Specific Heat (0-100°C)	427	J.kg <sup>-1</sup> .°K <sup>-1</sup>
Thermal Conductivity	9.4	W.m <sup>-1</sup> .°K <sup>-1</sup>
Thermal Expansion	11.2	mm / m / °C
Modulus Elasticity	221	GPa
Electrical Resistivity	1.30	μohm / cm
Density	8.89	g / cm <sup>3</sup>

### CHEMICAL COMPOSITION (% by weight)

Element	Min	Max
C	-	0.02
Si	-	0.08
Mn	-	1
P	-	0.030
S	-	0.30
Co	-	2.4
Fe	4	7
Cr	14.5	16.5
Cu	3	4.5
Mo	15	17
V	-	0.35
Ni	Balance	

**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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