

# Incoloy® 925 Nickel Alloy

## INCOLOY 925 NICKEL ALLOY DATASHEET

Incoloy® 925 nickel alloy has excellent corrosion resistance consistent with Alloy 825. High levels of nickel ensure protection against stress corrosion cracking, whilst the additional molybdenum and copper resist reducing environments, in the same way that chromium resists oxidizing environments. Molybdenum enhances resistance to pitting and crevice corrosion, lifting the Pitting Resistance Equivalent number (PREN) to above 26. With such a balanced composition, Incoloy 925 nickel alloy is particularly suited to down-hole applications in sour gas wells, but can also be used in less aggressive applications as it resists general, pitting, crevice and stress corrosion cracking in most aqueous environments where chloride or sulphide ions may be present.

Incoloy 925 nickel alloy applications include tubular products, valves, hangers, landing nipples, tool joints and packers. The alloy is also useful for fasteners, marine and pump shafting and high-strength piping systems.

Product forms include bar, seamless tubing, and plate.



### Standards

- UNS N09925

### Physical Properties

- Density: 0.292 LB/in<sup>3</sup> (8.08 g/cm<sup>3</sup>)
- Melting Range: 2392-2490°F (1311-1366°C)
- Modulus of Elasticity: 28.9 x10<sup>6</sup>psi
- Magnetic Permeability: 1.001 Max

### Characteristics

- Resistant to reducing chemicals
- Resistant to a variety of oxidizing substances
- Resistant to chloride-ion stress corrosion cracking
- Good for sour gas service

### Chemical Composition

	C	Mn	S	Si	Cr	Ni	Al	Mo	Fe	Ti	Cu	Nb
MIN	-	-	-	-	19.50	38.00	0.10	2.50	22.00	1.90	1.50	-
MAX	0.03	1.00	0.03	0.50	23.50	46.00	0.50	3.50	-	2.40	3.00	0.50

### Mechanical Properties

Tensile (min) KSI (Mpa)	Yield (min) KSI (Mpa)	Elongation (min) %	Reduction of Area (min) %	Hardness (max) HRB
99 (685)	39.3 (271)	56	25	76

WWW.SPECIALTYSTEELSUPPLY.COM



SPECIALTY STEEL SUPPLY  
19201 CIRCLE LAKE DR  
PINEHURST, TX 77362  
Call for a quote (281) 821-7111



All information in our data sheet is based on approximate testing and is stated to the best of our knowledge and belief. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of trading.  
© Specialty Steel Supply