



Incoloy Alloy 800 ®

Incoloy Alloy 800 ® is an alloy of nickel, chromium and iron. Alloy 800 offers excellent corrosion resistance, strength, heat resistance and solidity up to 1500°F. At these elevated temperatures resistance to sulfidation, oxidation and carburisation is superb. Its resistance even covers stress corrosion cracking and loss of toughness and ductility in sigma-phase embrittlement.

Incoloy Alloy 800 is used in many applications involving exposure to corrosive environments and high temperatures, such as heat treating equipment. This would also include applications such as industrial furnaces, chemical, petrochemical processing. Also, Power plants use Incoloy Alloy 800 for super-heater and re-heater tubing.

Incoloy alloy 800 Grades & Equivalents:

- UNS N08800
- UNS N08810
- UNS N08811
- ASTM B408
- ASTM B564
- Werkstoff 1.4876
- ASME SB163
- ASME SB409
- BS3076 NA15

Typical Chemical Analysis

C	Si	Mn	P	S	Cr	Ni	Mo
0.06-0.10	1.000	1.500		0.015	19.0-23.0	30.0-35.0	
W	N	Cb/Nb	Ti	Co	Cu	Al	B
			0.15-0.60		0.750	0.15-0.60	
V	Fe	Mg	Ta	Ca	O	Bi	Se
	39.5 min						
Sn	Zn	Pb	Y	Cb/Nb + Ta	Ni + Co	H	PREN

Typical Mechanical Properties

Tensile Strength	448 N/mm ² min
0.2% Proof Stress	172 N/mm ² min
Elongation	30%
Reduction of Area	
Hardness	
Impacts	
Stress Rupture	
Other Remarks	

Product Forms Available:

- Hexagon Head Bolts
- Hexagon Nuts
- Studbolts
- Socket Capscrews
- Socket Countersunk Screws
- Socket Setscrews
- & Many other special fasteners and bespoke machined parts

Products can be produced to customer drawings or relevant British (BS), American (ASME, ANSI), European (DIN, UNI) or International Standards (ISO).

The size ranges M3 to M120 Metric and 3/16" to 4.75" Imperial can be supplied. Thread forms include UNC, UNS, UNF, BSW, BSF, Whitworth, Metric, Metric Fine.



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