

INCONEL ALLOY 800H

NICKEL ALLOY

INCONEL ALLOY

HIGH TEMPERATURE RESISTING ALLOY

Incoloy 800H are nickel-iron-chromium alloys having high resistance to carburization and oxidation in high-temperature exposure and with good strength. These nickel steel alloys are identical except for the higher level of carbon in alloy 800H, and the addition of up to 1.20 % aluminum and titanium in alloy 800HT. The nickel alloy is dual certified (800H/HT) and combines the properties of both forms. Incoloy 800H/HT alloy was actually meant for high-temperature structural applications. These alloys are resistant to embrittlement from precipitation of sigma phase and chloride stress-corrosion cracking due to the nickel content. The corrosion resistance is quite high.

Chemical Properties

C	Mn	S	Si	Cr	Ni	Cu	Ti	Al	Fe
0.10 Max	1.50 Max	0.020 Max	1.00 Max	19.0-23.0	30.0-35.0	0.75 Max	0.15-0.60	0.15-0.60	39.50 Min

Mechanical Properties

Yield strength	Tensile strength	Elongation
Min 0.2% Mpa	Min Mpa	Min %
170	450	30

Physical Properties

Density	Elastic Modulus	Mean Coefficient of Thermal			Thermal Conductivity		Specific Heat	Electrical Resistivity
(Kg/m ³)	(Gpa)	Expansion(µm/m/°C)			(W/m.K)		0-100°C	(nΩ.m)
7.94	210	14.4	16.8	18	11.5	31.9	460	595

Heat Treatment

Solution Annealed @ 1177°C & Rapidly Liquid Quenched

Equivalent Designation

UNS N08810
W.Nr. 1.4876
Din X10NiCrAlTi32-20
AFNOR Z 10 NC 32-21

CUSTOMER ASSISTANCE : customer@TorqBolt.com

#4/217, Deccan Bank Bldg,
R. R. Roy Road, Mumbai – 400 004,
Maharashtra, INDIA

Email: info@TorqBolt.com
Web: www.TorqBolt.com

Copyright 2013 Torqbolt Inc.