



TIG NI82

Old reference: TIG Ni82

Classification

AWS A5.14 : ERNiCr-3
AMS 5836

ISO 18274 : S Ni 6082 (NiCr20Mn3Nb)

Description & Applications

Solid rod for GTAW of high nickel content alloys like Inconel 600* or Incoloy 800*. Used in the construction of equipment submitted to oxidizing and corrosive attacks at high temperatures. High resistance at low temperatures on steels of 5% and 9% Ni. Also used for heterogeneous assembly between C-Mn steels or low alloy steels with stainless steels or Nickel base alloy and with some copper alloys.

* Trade mark INCO ALLOYS

Main applications: Construction and repair welding of high strength steels, tool steels, corrosion resistant steels, high temperature and nickel alloys in component manufacturing, furnace construction, cement industry.

Base materials:

UNS	Alloy	DIN	Material N°
	5%Ni	12Ni19	1.5680
N06600	600	NiCr15Fe	2.4816
N08800	800	X10NiCrAlTi3220	1.4876
N08810	800H	X5NiCrAlTi3120	1.4958
	DS	X8NiCrSi3818	1.4862

Typical Chemical Composition (%)

	C	Si	Mn	Cr	Nb+ Ta	Cu	P	S	Fe	Ti	Ta	Ni
Min			2.5	18.0	2.0							67.0
Max	0.10	0.50	3.5	22.0	3.0	0.50	0.03	0.015	3.0	0.7	0.30	
Type	0.03	0.20	3.2	20.5	2.3	0.01	0.01	0.01	2.0	0.30	0.01	>67.0

All Weld Metal Mechanical Properties

	R _{p0.2} (MPa)	R _m (MPa)	A ₅ (%)	KV (J)
Min	-	-	-	-
Max				
Type	430	670	42	+20°C : 200 -196°C : 100

Welding Current & Instructions

Welding mode	Shielding Gas
TIG = -	ISO 14175: I1 (Ar) : 6-12 l/min Back shielding : I1 (Ar) : 3-6 l/min

Ft En-TI06-240920

Liability: This document is intended to assist the user in choosing the product. It is up to the user to verify that the chosen product is suitable for applications for which it is intended. The company Selectarc reserves the right to alter specifications without prior notice of its products. The descriptions, illustrations and specifications are for reference only and cannot be held liable for Selectarc. **Fumes:** Consult information on MSDS, available upon request.

www.selectarc.com - info@selectarc.com