TIG NI625

Classification

AWS A5.14 : ERNiCrMo-3 ISO 18274 : S Ni 6625 (NiCr22Mo9Nb)
AMS 5837

Description & Applications

Solid rod for GTAW of high nickel alloys like Inconel 625 as well as special austenitic stainless steels. Used in the construction of equipment submitted to oxidizing and corrosive attacks. Excellent resistance to pitting, crevice and stress corrosion cracking in the presence of chlorides. Highly resistant at low temperatures, therefore also applied to weld 9% Ni steels. Could be used for heterogenous assembly between C-Mn or low alloy steels and stainless steels or nickel alloys.

Main applications: Cryogenic applications, chemical and petrochemical industries, aeronautic industry.

Base materials :

UNS	Alloy	DIN	Material N°
K81340	9%Ni	X8Ni9	1.5662
N06625	625	NiCr22Mo9Nb	2.4856
N08825	825	NiCr21Mo	2.4858
N08904	904L	X1NiCrMoCuN25-20-5	1.4539
N08926	254SMo	X1NiCrMoCuN25-20-6	1.4529

Typical Chemical Composition (%)

	C	Si	Mn	Cr	Mo	Cu	P
Min				20.00	8.00		
Max	0.10	0.50	0.50	23.00	10.00	0.50	0.015
Type	0.01	0.15	0.10	22.0	8.7	0.01	0.007

	S	Fe	Nb+Ta	Co	Al	Ti	Ni
Min			3.20				58.0
Max	0.015	5.00	4.10	1.00	0.40	0.40	
Type	0.003	0.30	3.6	0.01	0.10	0.20	>58.0

All Weld Metal Mechanical Properties

	$R_{p0.2}$ (MPa)	R_m (MPa)	A_5 (%)	KV (J)	
Min	-	-	-	-	-
Max					
Type	520	790	40	+20°C -196°C	160 100

Welding Current & Instructions

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