TIG F82

Old reference: TIG 80SNi2

Classification

AWS A5.28 : ER80S-Ni2 ISO 636-A : W2Ni2

Description & Applications

Copper coated solid rod, low alloyed with Nickel (2.5% Ni) for GTAW of fine grain steels and cold tough steels at low service temperature. Good impact strength at low temperatures down to -60°C.

Main applications: For liquid gas distribution pipes, tanks, off shore, and petro-chemistry**.**

Base material:

High strength steels, fine grain construction steels, cold tough:

EN	*Material N°*	*ASTM*
12Ni9	1.5635	
14Ni6	1.5622	A352 gr. LC2
13MnNi6-3	1.6217	
S/P275-S/P420		A516 / A255 / A299 / A333 / A350
P235T1/2-P355N		A369 / A210/ A106
L210-L485		
S255 - S550		A516 / A255 / A333 / A350 / A612 / A714

Typical Weld Metal Composition (%)

	C	Si	Mn	Cr	Ni	Mo	Cu	Al	Ti+Zr	V	P	S
Min	0.06	0.40	0.80		2.10							
Max	0.12	0.80	1.25	0.15	2.70	0.15	0.35	0.02	0.15	0.03	0.020	0.020
Type	0.08	0.60	1.1	0.05	2.5	0.05	0.15	0.003	0.003	0.003	0.01	0.01

All Weld Metal Mechanical Properties

	R_e (MPa)	R_m (MPa)	A_5 (%)	KV (J)	
Min	470	550	24	-60°C	27
Max					
Type	530	620	26	-20°C -40°C -60°C	130 100 90

Weld Current & Instructions

Welding mode	Shielding gas
TIG = -	ISO 14175: I1 (Ar): 6-12 l/min Back shielding : I1 (Ar) / N1 (Nitrogen) : 3-6 l/min

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