TIG F81

Old reference: TIG 80SNi1

Classification

AWS A5.28 : ER80S-Ni1 ISO 636-A : W 46 6 3Ni1

Description & Applications

Copper coated solid rod, low alloyed with Nickel (1% 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 materials:

Fine grain steels, cold tough steels :

EN	*ASTM*
S275	A 131 gr A, B, D, E
S355	A 333 gr 6
S420	A 334 gr 6
L290, L290 G A	A 350 gr LF2, LF5
L360, L360G A	API 5LX42, 46, 52, 60, 65
L415	

Typical Weld Metal Composition (%)

	C	Si	Mn	Cr	Ni	Mo	Cu	Al	Ti+Zr	V	P	S
Min	0.06	0.50	1.00		0.80							
Max	0.12	0.80	1.25	0.15	1.10	0.15	0.35	0.02	0.15	0.03	0.020	0.020
Type	0.08	0.60	1.1	0.06	1.0	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	47
Max		680			
Type	500	580	25	-60°C	65

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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