MIG F81

Old reference: MIG 80SNi1

Classification

AWS A5.28 : ER80S-Ni1 ISO 14341-A : G 46 6 M21 3Ni1

Description & Applications

Copper coated solid wire low alloyed with Nickel (1% Ni) for gas (Ar + CO_2) metal arc welding 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	O/T
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	0.50
Type	0.10	0.70	1.2	0.10	1.0	0.01	0.15	0.005	0.003	0.002	0.015	0.010	<0.50

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	600	25	-60°C	60

Weld Current & Instructions

Welding mode	Wire Ø (mm)	Welding parameters		Shielding Gas
		Current (A)	Voltage (V)	
GMAW = +	1.0 1.2	80 - 260 100 - 360	17 - 32 18 - 34	ISO 14175: M21 (Ar/CO_2) 12-15 l/min