



# MIG F82

Old reference: MIG 80SNi2

## Classification

AWS A5.28 : ER80S-Ni2

ISO 14341-A : G 46 6 M21 2Ni2

## Description & Applications

Copper coated solid wire low alloyed with Nickel (2% Ni) for gas (Ar + CO<sub>2</sub>) 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
S355	A 203 gr A, B
S420	A 333 gr 6
11MnNi 5-3	A 350 gr LF1, LF2
13MnNi 6-3	A 352 gr LC2
15NiMn 6	API 5LX52, 56, 60, 65
L360, L415, L455	

## Typical Weld Metal Composition ( % )

	C	Si	Mn	Cr	Ni	Mo	Cu	Al	Ti+Zr	V	P	S	O/T
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	0.50
Type	0.10	0.60	1.1	0.06	2.4	0.05	0.15	0.005	0.003	0.002	0.015	0.010	<0.50

## All Weld Metal Mechanical Properties

	R <sub>e</sub> ( MPa )	R <sub>m</sub> ( MPa )	A <sub>5</sub> ( % )	KV ( J )
Min	470	550	24	-60°C
Max		680		>47
Type	520	640	26	-60°C

## 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 <sub>2</sub> ) 12-15 l/min

FT En-MF21-191113

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