



GMAW/GTAW LOW ALLOY STEEL (Low Temperature)

AUTOMIG 80S-Ni2 / TIGFIL 80S-Ni2

COPPER COATED LOW ALLOY WIRE FOR -60°C IMPACT APPLICATION



CLASSIFICATION : EN ISO 14341-A EN ISO 636-A AWS A/SFA 5.28 APPROVALS :

Automig 80S-Ni2: G 46 6 M G2Ni2	-	ER80S-Ni2	-
Tigfil 80S-Ni2: -	W 46 6 W2Ni2	ER80S-Ni2	IBR

KEY FEATURES :

- Copper coated low alloy steel solid filler wire & rod
- Typical 2.5% Ni-Mn alloy
- Uniform copper coating
- Tough, crack resistant weld deposit gives high impact at -60°C
- Radiographic quality weld

WELDING POSITION :



GMAW: DCEP
GTAW: DCEN

Shielding Gas	Gas Flow Rate, LPM	Stickout, mm
GMAW: Ar/1-5O ₂	15-22	10-20
GTAW: Ar	10-15	-

TYPICAL APPLICATIONS :

- Welding of 2.5% Ni steels
- Welding fine grained and low alloyed Ni steels
- Welding of storage tanks for low temperature application
- Offshore applications

STORAGE / HANDLING :

Keep dry and follow handling instructions mentioned on the box

CHEMICAL COMPOSITION OF BARE SOLID WIRE, Wt% :

	C	Mn	Si	Ni	Cu*	S	P
Specification	0.12 max	1.25 max	0.40-0.80	2.0-2.75	0.35 max	0.025 max	0.025 max

* Including Cu in the coating

MECHANICAL PROPERTIES OF ALL WELD METAL :

	Condition	UTS, MPa	YS at 0.2% offset, MPa	EL%	CVN Impact at -60°C, J
Specification	PWHT: 620°C for 1 Hr	550 min	480 min	24 min	47 min

Hardness, 3 Layer: 210 BHN max

Mechanical properties will vary with the type of shielding gas used.

PACKING DATA :

Automig 80S-Ni2	Ø, mm		Kg/Spool	
		1.2		15
	1.6		15	
Tigfil 80S-Ni2	Ø x L, mm	Primary Box, Kg	No. of Primary Boxes	Net Wt. of Carton, Kg
	1.6 x 1000	5	4	20
	2.0 x 1000	5	4	20
	2.5 x 1000	5	4	20

EQUIVALENT :

SMAW Electrode: **Tenalloy 70A**