



**GMAW/GTAW LOW ALLOY STEEL (High Strength)**  
**AUTOMIG 90S-D2 (AUTOMIG IV)**  
**TIGFIL 90S-D2**

COPPER COATED LOW ALLOY WIRE FOR Mn-Mo STEEL WELDING



**CLASSIFICATION :** AWS A/SFA 5.28 **APPROVALS :**

Automig 90S-D2 (Automig IV): ER90S-D2 IBR/RDSO  
 Tigfil 90S-D2: ER90S-D2 -

**KEY FEATURES :**

- Copper coated solid filler wire and rod
- Mn-0.5 Mo type welds deposit
- Uniform copper coating
- Mo addition for high strength
- High level of deoxidizers for defect free welds
- Excellent low temperature toughness
- Porosity free radiographic quality weld

**WELDING POSITION :**   **GMAW: DCEP**  
**GTAW: DCEN**

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

**TYPICAL APPLICATIONS :**

- Welding of high tensile steels like IS 8500 Gr.540B, 570B & 590B, IS 2002 Gr.3, IS 1875 Class 3A
- Welding of Sailma 450/450Hi steel used in CONCOR wagons
- Suitable for singal and multiple pass welding
- High temperature service pipe, fittings, flanges and valves

**STORAGE / HANDLING :**

Keep dry and follow handling instructions mentioned on the box

**CHEMICAL COMPOSITION OF BARE SOLID WIRE, Wt% :**

	C	Mn	Si	Mo	Cu*	S	P
Specification	0.07-0.12	1.60-2.10	0.50-0.80	0.40-0.60	0.50 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 -30°C, J
Specification	As Welded	620 min	540 min	17 min	30 min

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

**PACKING DATA :**

Automig 90S-D2	Ø, mm		Kg/Spool	
		1.2		15
	1.6		15	
Tigfil 90S-D2	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