



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

COPPER COATED HIGH STRENGTH LOW ALLOY STEEL WIRE



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

Automig 90S-G: ER90S-G                    -  
 Tigfil 90S-G: ER90S-G                    -

**KEY FEATURES :**

- Copper coated high strength low alloy steel GMAW wire & rod
- Welds even over poor cleaned base metals
- Recommended Ar+O<sub>2</sub> shielding gas
- Moderately high strength with adequate low temperature toughness
- Exhibits excellent out of position characteristics
- Radiographic weld quality

**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 high sulfur bearing free machining steels, medium carbon steels, 0.5 Mo steels and high temperature resistant steels
- Pipelines and pressure vessels with operating temperatures of about 500°C
- Repair of medium strength steel castings

**STORAGE / HANDLING :**

Keep dry and follow handling instructions mentioned on the box

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

	C	Mn	Si	Mo	S	P
Typical	0.09	1.6	0.6	0.4	0.01	0.01

\* 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	650	570	25	45

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

**PACKING DATA :**

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