



**GTAW LOW ALLOY STEEL (High Temperature)**  
**TIGFIL 80S-B2 SPL**

1.25Cr-0.5Mo COPPER COATED SOLID FILLER ROD FOR HIGH TEMPERATURE APPLICATION



**CLASSIFICATION :** AWS A/SFA 5.28

EN ISO 21952-A

ER80S-B2

W CrMo1Si

**KEY FEATURES :**

- Copper coated low alloy steel solid filler rod
- Typical 1.25 Cr-0.5 Mo weld deposit
- Notch free welds with excellent mechanical properties
- Meets X factor requirement
- Control on pre-heat, interpass temperature required
- PWHT is essential to avoid cracking
- Radiographic quality weld

**WELDING POSITION :**



**DCEN**

**Shielding Gas:** Ar

**Gas Flow Rate, LPM :** 10-15

**TYPICAL APPLICATIONS :**

- Welding of 0.5Cr-0.5Mo, 1Cr-0.5Mo and 1.25Cr-0.5Mo steel pipes, plates and castings
- Elevated temperature and corrosive service applications in Refineries, Petrochemicals & fertilizers plant
- Can be used for joining dissimilar combinations of Cr-Mo and Carbon steels
- Suitable for ASTM A 199-76, A 200-75, A 213-76D, A 335 Gr.P11, A 369-76, A 387 Gr.B, DIN 15CrMo3

**STORAGE / HANDLING :**

Keep dry during storage and handling

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

	<b>C</b>	<b>Mn</b>	<b>Si</b>	<b>Cr</b>	<b>Mo</b>	<b>Cu*</b>
Specification	0.07-0.12	0.40-0.70	0.40-0.70	1.20-1.50	0.40-0.65	0.15 max
	<b>As</b>	<b>Sn</b>	<b>Sb</b>	<b>S</b>	<b>P</b>	
Specification	0.005 max	0.005 max	0.005 max	0.010 max	0.010 max	

\* Including Cu in the coating

**MECHANICAL PROPERTIES OF ALL WELD METAL :**

	<b>Condition</b>	<b>UTS, MPa</b>	<b>YS at 0.2% offset, MPa</b>	<b>EL%</b>	<b>CVN Impact at -30°C, J</b>
Specification	PWHT: 620°C for 1 Hr	550 min	470 min	19 min	27 min

**CREEP TEST DATA:**

<b>Condition</b>	<b>Temperature, °C</b>	<b>Stress, MPa</b>	<b>Duration, Hrs</b>	<b>Strain% after 1000 Hrs</b>
PWHT: 695°C for 1 Hr	500	300	1000	1.54
	550	140	1000	0.99

**PACKING DATA :**

<b>Ø x L, mm</b>	<b>Primary Box, Kg</b>	<b>No. of Primary Boxes</b>	<b>Net Wt. of Carton, Kg</b>
1.6 x 1000	5	4	20
2.0 x 1000	5	4	20
2.5 x 1000	5	4	20
3.2 x 1000	5	4	20