



TIGFIL 80S-B2 SPL

GTAW LOW ALLOY STEEL (High Temperature)

AWS A/SFA 5.28 **ER80S-B2**

CLASSIFICATION:

EN ISO 21952-B
W 55 11 1CM

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

TYPICAL APPLICATIONS:

- Welding of 0.5Cr-0.5Mo, 1Cr-0.5Mo and 1.25Cr0.5Mo 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

TYPICAL CHEMICAL COMPOSITION OF BARE SOLID WIRE, Wt %:

C	Mn	Si	Cr	Mo
0.1	0.6	0.5	1.25	0.5

MECHANICAL PROPERTIES OF ALL WELD METAL:



	Condition	UTS, MPa	YS at 0.2% offset, MPa	EL%	CVN Impact at -30°C, J
Typical	PWHT: 620°C for 1 Hr	600	570	21	40

Special Test: X Factor = $(10P + 5Sb + 4Sn + As)/100 < 15\text{ppm}$

CREEP TEST DATA:

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

PARAMETERS - PACKING DATA:

Ø x L, mm	Net Wt., Kg	 DCEN	All Positions 
1.6 x 1000	20		
2.0 x 1000	20		
2.4 x 1000	20		
3.15 x 1000	20		

Shielding Gas	Gas Flow Rate, LPM
Ar	10-15

Available in Standard carton packing of 20 kg box, containing 4 plastic tubes of 5 kg each.