



**GMAW/GTAW LOW ALLOY STEEL (High Temperature)**

**AUTOMIG 80S-B6 / TIGFIL 80S-B6**

5Cr-0.5Mo COPPER COATED LOW ALLOY WIRE FOR CREEP RESISTANCE



**CLASSIFICATION : EN ISO 21952-A    AWS A/SFA 5.28    APPROVALS :**

Automig 80S-B6: G CrMo5Si	ER80S-B6	-
Tigfil 80S-B6: W CrMo5Si	ER80S-B6	-

**KEY FEATURES :**

- Copper coated low alloy steel solid filler wire & rod
- Uniform copper coating
- Recommended pre-heat and interpass temperature 350-450°C
- Typical 5 Cr-0.5 Mo weld deposit
- Air hardenable alloy resistant to creep at elevated temperature up to 650°C
- 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 5 Cr-0.5 Mo creep resistant steels and equivalent grades
- Application in power generation, ammonia synthesis plants and petrochemical industries
- Joining P5/T5 materials of similar composition
- Joining P5B materials e.g. SA 336/336M Gr.F5, SA 387/387M Gr.5

**STORAGE / HANDLING :**

Keep dry and follow handling instructions mentioned on the box

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

	C	Mn	Si	Cr	Mo	Ni	Cu*	S	P
Specification	0.10 max	0.40-0.70	0.50 max	4.50-6.0	0.45-0.65	0.60 max	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%
Specification	PWHT: 745°C for 1 hr	560 min	470 min	17 min

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

**PACKING DATA :**

Automig 80S-B6	Ø, mm		Kg/Spool	
		1.2		15
	1.6		15	
Tigfil 80S-B6	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: **Cromoten D**