



FCAW LOW ALLOY STEEL (High Temperature)
AUTOMIG FC 81T1-B2

LOW ALLOY STEEL FCAW WIRE FOR 1.25Cr-0.5Mo TYPE CREEP RESISTANT ALLOY



CLASSIFICATION : AWS A/SFA 5.29 EN ISO 17634-A **APPROVALS :**

E81T1-B2C T CrMo1 R C 2 IBR

KEY FEATURES :

- Rutile type gas shielded FCW wire
- Stable and smooth arc
- Low fumes, Minimal spatters
- Easy slag removal, smooth weld bead
- 1.25Cr-0.5Mo type weld deposit
- Resistant to creep and heat up to 550°C
- Radiographic quality weld

WELDING POSITION :



DCEP

Shielding Gas	Gas Flow Rate, LPM	Stickout, mm
CO ₂	10-20	10-20

TYPICAL APPLICATIONS :

- Welding of 1.25Cr-0.5Mo, 1Cr-0.5Mo steels
- For Cr and Cr-Mo bearing steels at elevated temperature service
- Suitable for 13CrMo44, 15CrMo5, 15Cr3, 16MnCr5, 20MnCr5
- Joining P4 materials ASTM SA 182/182M Gr.F2/F11/F12, SA 213/213M Gr.T11/T12, SA 335/335M Gr.P11/P12, SA 387/387M Gr.2/11/12
- Steam production plants, steam pipes

STORAGE / HANDLING :

Keep dry and follow handling instructions mentioned on the box

CHEMICAL COMPOSITION OF UNDILUTED WELD METAL, Wt% :

	C	Mn	Si	Cr	Mo	S	P
Specification	0.05-0.12	1.25 max	0.80 max	1.0-1.50	0.40-0.65	0.025 max	0.025 max

MECHANICAL PROPERTIES OF ALL WELD METAL :

	Condition	UTS, MPa	YS at 0.2% offset, MPa	EL%
Specification	PWHT: 690°C for 1 Hr	550-690	470 min	19 min

CREEP TEST DATA :

	Temperature, °C	Stress, MPa	Duration, Hrs	Strain% after 1000 Hrs
PWHT: 690°C for 1 Hr	500	300	1000	1.42
	550	140	1000	1.06

PARAMETERS - PACKING DATA :

Ø, mm	Voltage, V	Amperage, A	Kg/Spool
1.2	20 – 30	130 - 300	15
1.6	24 – 32	200 - 380	15

EQUIVALENT :

SMAW Electrode: **Cromoten**

GMAW Wire: **Automig 80S-B2**

GTAW filler: **Tigfil 80S-B2**