



## MOLYTEN

LOW ALLOY STEEL (High Temperature)



Welding Electrode for high temperature application.

**CLASSIFICATION :** EN ISO 3580-A

AWS A/SFA 5.5

**APPROVALS :**

E Mo B 32 H5

E 7018-A1

ABS/ IBR/NPCIL

### KEY FEATURES :

- Basic coated electrode
- Good creep rupture strength at elevated temperature up to 550°C
- High recovery electrode
- Preheat and PWHT at 620°C is required
- Radiographic quality welds
- All position capability

**WELDING POSITION :**



**AC (70 OCV)/DCEP**

### TYPICAL APPLICATIONS :

- Welding 0.5 Mo and 1 Cr - 0.5 Mo steels and similar composition steels
- High temperature and high pressure boilers
- Chemical industries, Oil refining industries, Turbine casting
- Suitable for 15Mo3, 16Mo3, 14Mo6
- Joining ASTM SA 182/182M Gr.F1, SA 204/204M Gr.A, SA 209/209M Gr.T1/T1A/T1B, SA 217/217M Gr.WCI

**REDRYING CONDITION : 250-300°C for minimum 1 hr. (Also available in vacuum packed condition)**

### CHEMICAL COMPOSITION OF UNDILUTED WELD METAL, Wt % :

	C	Mn	Si	Mo	S	P
Typical	0.06	0.6	0.4	0.5	0.01	0.02
Specification	0.12 max	0.9 max	0.8 max	0.4 - 0.65	0.03 max	0.03 max.

### MECHANICAL PROPERTIES OF ALL WELD METAL :

	Condition	UTS, MPa	YS at 0.2% offset, MPa	EL%	CVN Impact at 20°C, J
Typical	PWHT: 620°C for 1 hr.	550	460	27	165
Specification		490 min	390 min	22 min	140-200

Hardness, 3 Layer: 200 BHN max

Diffusible H2 Content: <5 ml/100 gm

**SPECIAL TESTS : Creep Rupture Test at 540°C - 50 MPa stress for min. 1000 hrs**

### PARAMETERS - PACKING DATA :

Ø x L, mm	Amperage, A	Approx. Pcs/Carton	Carton/Box	Approx. wt. of 1000 pcs, Kg.
2.5 x 350	60-90	250	4	20
3.15 x 450	100-140	115	4	43
4.0 x 450	140-180	78	4	63
5.0 x 450	190-250	53	4	93

**EQUIVALENT : GTAW filler: Tigfil-70S-A1**