



# CROMOTEN 2 STC

LOW ALLOY STEEL (High Temperature)



Basic Coated Electrode for welding 2.25 Cr-1Mo type creep resistant steel.

**CLASSIFICATION :** EN 1599

AWS A/SFA 5.5

E CrMo2 B 32 H5

E 9018-B3

## KEY FEATURES :

- Non synthetic, basic coated iron powder electrode
- Low alloy steel Cr-Mo deposit
- Resistant to creep and heat upto 600°C
- Ductile and crack resistant and heat treatable weld
- Radiography quality weld metal

**WELDING POSITION :**



AC (70 OCV)/DCEP

## TYPICAL APPLICATIONS :

- Welding of 2.25Cr-0.5Mo and 2.25Cr-1Mo type creep resistant steels
- Cr-Mo and Cr-Mo-V bearing steels for high temperature applications
- Main steam pipes of boilers in electric power plant, Boiler super heaters
- Joining of P5A materials
- Suitable for 12CrMo9-10, 10CrSiMoV7 German steels
- Joining ASTM A 335 Gr.P22, A 387 Gr.22 materials
- Application in refineries, power plants, pressure vessels, boilers

**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	Cr	Mo	S	P
Typical	0.08	0.6	0.4	2.4	1.0	0.01	0.012
Specification	0.05-0.09	0.45-0.75	0.20-0.65	2.0-2.5	0.9-1.2	0.015 max	0.015 max

## MECHANICAL PROPERTIES OF ALL WELD METAL :

	Condition	UTS, MPa	YS at 0.2% offset, MPa			EL%	CVN Impact at -10°C, J
Typical	PWHT: 690°C for 1 Hr	660	580			22	100
Specification	625-740	540-640	20-24			20-24	-
		CVN Impact at,					
		+25°C	0°C	-20°C	-40°C	-50°C	
PWHT: 690°C for 7 Hr		195	175	157	84	66	
PWHT+Step cooling	Temp. (°C)	593	538	524	496	468	
	Time (Hrs)	1	15	24	60	100	

**Meets X factor requirement, X factor = (10P + 5Sb + 4Sn + As) < 12ppm**

Hardness, 3 Layer: 180-200 BHN

Diffusible H<sub>2</sub> Content: < 5 ml/100 gm

**SPECIAL TESTS :** Creep Rupture Test at 600°C (100 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	230	4	22
3.15 x 450	100-140	112	4	44
4.0 x 450	140-180	75	4	66
5.0 x 450	190-250	54	4	91