



## CROMOTEN 2 STC

LOW ALLOY STEEL (High Temperature)



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

**CLASSIFICATION : EN ISO 3580-A**

**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 % :

	<b>C</b>	<b>Mn</b>	<b>Si</b>	<b>Cr</b>	<b>Mo</b>	<b>S</b>	<b>P</b>
Typical	0.08	0.6	0.4	2.4	1.0	0.01	0.012
Specification	0.05 - 0.12	0.9 max	0.8 max	2.0-2.5	0.9 - 1.2	0.03 max	0.03 max

### MECHANICAL PROPERTIES OF ALL WELD METAL :

<b>Condition</b>		<b>UTS, MPa</b>	<b>YS at 0.2% offset, MPa</b>		<b>EL%</b>	<b>CVN Impact at -10°C, J</b>	
Typical	PWHT: 690°C for 1 Hr	660	580		22	100	
Specification	625-740	620 min	530 min		17 min	-	
		<b>CVN Impact at,</b>					
		+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 H2 Content: <5 ml/100 gm

**SPECIAL TESTS : Creep Rupture Test at 600°C (100 MPa stress for min. 1000 hrs)**

### PARAMETERS - PACKING DATA :

<b>Ø x L, mm</b>	<b>Amperage, A</b>	<b>Approx. Pcs/Carton</b>	<b>Carton/Box</b>	<b>Approx. wt. of 1000 pcs, Kg.</b>
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