CROMOTHERME-1(RTE)

CODIFICATION :

AWS : SFA 5.5 E8018-B2
EN ISO : 3580-A E CrMo1 B 3 2 H5

CHARACTERISTICS AND APPLICATIONS :

Weld metal having strict control on S, P, As, Sn & Sb will improve the subzero impact property and resists temper embrittlement. Weld metal retains its mechanical properties after prolonged heat treatments. Ideal for welding steam generating equipments and reactor vessels. The weld metal displays excellent tensile strength and creep resistance. Specially applicable wherever temper embrittlement resistance is required.

TYPICAL CHEMICAL COMPOSITION OF ALL WELD METAL :

Element	C	Mn	Si	Cr	Mo	Sb	As	S	P	Sn	Cu	Ni	Ti	V
Percent	0.06	0.60	0.25	1.30	0.55	0.001	0.0035	0.009	0.009	0.003	0.018	0.14	0.002	0.008

TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

	YS (MPa)	UTS (MPa)	El (L=5d)%	CVN Impact (J) At Minus 33°C	Hardness (VPN)
SR at 690°C/ 1 hr	500	580	24	-	-
SR at 690°C/ 2.5 hrs	450	540	28	150	200
SR at 690°C/ 16 hrs	390	520	30	170	-

DIFFUSIBLE HYDROGEN CONTENT: 4 ml/100 gms of weld metal (max.).

X-FACTOR : $(10P + 5Sb + 4Sn + As)/100 \leq 12.0$ (Elements in ppm)

J-FACTOR: $(Si + Mn) \times (P + Sn)\ 10^4 \leq 125$

STEP COOLING REQUIREMENT: $CvTr40 + 2.5 \Delta CvTr40Sc < 10°C$

(Where CvTr40: Transition temperature at absorbed energy of 40J of heat treated specimen. Δ CvTr40Sc: Shift in 40J transition temperature due to step cooling)

CURRENT & PACKING DATA: AC/DC (+)

Size (mm) Dia x Length	:	6.3 x 450	5 x 450	4 x 350	3.15x350	2.5 x 350
Current Range (Amps)	:	250-300	200-250	140-180	100-130	70-100
Qty.(Pcs./Carton)	:	25	35	55	75	100

APPROVAL: CE

PRECAUTIONS:

1. Ensure the electrodes are dry. Re-dry the electrodes at 300-350°C for one hour.
2. Use short arc, low current and stringer beads.