CROMOTHERME-2(RTE)

CODIFICATION:

AWS : SFA 5.5 E9018-B3

EN ISO : 3580-A E CrMo2 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	Al	V	Ni	Cu	Ti
Percent	0.06	0.5	0.2	2.4	1.0	0.001	0.0035	0.007	0.007	0.0035	0.002	0.01	0.10	0.02	0.002

TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL :

	YS (MPa)	UTS (MPa)	El (L=5d)%	CVN Impact (J) at minus 40°C	Hardness (VPN)
SR at 690°C/ 1 hr	550	640	22	–	–
SR at 690°C/ 6 hrs	455	560	24	90	180
SR at 690°C/ 40 hrs	425	535	26	100	–

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

X-FACTOR: $(10P + 5Sb + 4Sn + As) / 100 \leq 15.0$ (elements in ppm)

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

PE: $(C + Mn + Mo + Cr/3 + Si/4) + 3.5(10P + 5Sb + 4Sn + As) < 3$

STEP COOLING REQUIREMENT: $CvTr54 + 2.5\ \Delta\ CvTr54SC < 10°C$

(Where CvTr54: Transition temperature at absorbed energy of 54J of heat treated specimen. Δ CvTr54SC: Shift in 54J transition temperature due to step cooling)

CURRENT & PACKING DATA: AC/DC (+)

Size (mm) Dia x length :	6.3x450	5x450	4x350	3.15x350	2.5x350
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 250-300°C for one hour.
2. Use short arc, low current and stringer beads.