Chromet® 1X

TOP FEATURES

- 1¼Cr-½Mo deposit which meets specific requirements for improved temper embrittlement resistance with prolonged service at 400-600°C
- Relevant trace elements (P, Sn, As, Sb) are controlled to ensure low Bruscato (X) and Watanabe (J) factors
- Basic flux, metal powder type coatings on low carbon high purity core wire
- Recovery is about 115%

TYPICAL APPLICATIONS

- Petro-Chemical
- Power Plants
- Piping
- Turbine Casting
- Boiler Superheaters

CLASSIFICATION

AWS A5.5	E8018-B2 H4R
EN ISO 3580-A	E CrMo1 B 3 2 H5
EN ISO 3580-B	E 5516-1CM

CURRENT TYPE

DC+/AC

WELDING POSITIONS

All position, except vertical down

CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, ALL WELD METAL

	C	Mn*	Si*	S	P	Cr	Mo	Cu	Sn	As
Min.	0.05	0.50	0.15	not specified	not specified	1.00	0.45	not specified	not specified	not specified
Max.	0.10	0.90	0.30	0.015	0.012	1.40	0.65	0.15	0.005	0.010
Typical	0.06	0.70	0.25	0.012	0.009	1.25	0.55	<0.05	0.002	0.003

*Mn+Si < 1.10%

Bruscato factor (X) : 10P + 5Sb + 4Sn + As (ppm)/100 = 15 Max

Watanabe factor (J) : (Mn+Si)x(P + Sn) x 104 = 180 max

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

Properties after PWHT:		Min.	Typical 690°C/1h	690°C/5h	690°C/5h + SC*
Tensile strength	(MPa)	550	610	610	595
0.2% Proof strength	(MPa)	460	525	515	490
Elongation (%)	4d	19	25	29	29
	5d	20	21	25	25
Reduction of area (%)		not specified	70	70	70
Impact ISO-V (J)	+20°C	47 (1)	160	200	200
	-30°C	not specified	100	160	140
Hardness (HV)		not specified	200-210	220	190

* SC = step cooled

(1) ISO minimum average

OUTPUT RANGE

Diameter x Length (mm)	Current range (A)
2.5 x 350	70-110
3.2 x 350	80-140
4.0 x 450	100-180

PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Electrodes/pack	Net weight/pack (kg)	Item number
2.5 x 350	VPMD	80	1.9	CHROMET1X-25-2
3.2 x 350	VPMD	55	2.0	CHROMET1X-32-2
4.0 x 450	VPMD	40	2.7	CHROMET1X-40-2
5.0 x 450	VPMD	20	2.2	CHROMET1X-50-2

TEST RESULTS

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested according to prescribed standards, and should not be assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to, weld procedure, plate chemistry and temperature, weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding consumable and procedure before use in the intended application

Safety Data Sheets (SDS) are available here:

Subject to Change – The information is accurate to the best of our knowledge at the time of printing.
Please refer to www.lincolnelectric.eu for any updated information.