Chromet® 92

TOP FEATURES

- B9 (P92) alloyed steel: 9Cr steel designed to weld equivalent 'type 92' steels modified with tungsten, vanadium, niobium, nitrogen, and a small addition of boron to give improved long term creep properties
- Excellent tensile strength in creep regime
- Moisture resistant coating provides low amounts of weld metal hydrogen levels for a superior weld
- Specifically designed for high integrity structural service at elevated temperature

CLASSIFICATION

AWS A5.5	E9015-B92 H4
EN ISO 3580-A	E ZCrMoWVNb 9 0.5 2 B 3 2 H5

CURRENT TYPE

DC+/AC

WELDING POSITIONS

All position, except vertical down

TYPICAL APPLICATIONS

- Headers
- Main Steam Piping
- Turbine Castings
- Power Generation Plants

APPROVALS

TÜV
+

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

	C	Mn*	Si	S	P	Cr	Ni*	Mo	W	Nb	V	N	B	Al	Cu
Min.	0.08	0.40	not specified	not specified	not specified	8.0	not specified	0.30	1.5	0.04	0.15	0.03	0.001	not specified	not specified
Max.	0.13	1.00	0.40	0.015	0.020	9.5	0.80	0.60	2.0	0.07	0.25	0.07	0.005	0.03	0.15
Typical	0.11	0.6	0.25	0.01	0.01	9	0.5	0.45	1.7	0.05	0.2	0.05	0.003	<0.01	<0.05

*Mn + Ni ≤ 1.2%

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

Properties after PWHT		min.*	Typical (760°C / 2-4h) 20°C	550°C	600°C	650°C
Tensile strength	(MPa)	620	740	511	422	340
0.2% Proof strength	(MPa)	530	630	419	320	229
Elongation (%)	4d	17	22	15	19.5	19.5
	5d	16	19	14	18	18
Reduction of area (%)		not specified	50	64	73	80
Impact ISO-V (J)	+20°C	not specified	60	-	-	-
Hardness (HV)	PWHT	not specified	230-260	-	-	-

OUTPUT RANGE

Diameter x Length (mm)	Current range (A)
3.2 x 350	90-120
4.0 x 350	125-155
5.0 x 450	140-240

PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Electrodes/pack	Net weight/pack (kg)	Item number
3.2 x 350	CBOX	116	3.9	CH92-32-3
4.0 x 350	CBOX	83	4.1	CH92-40-3
5.0 x 450	CBOX	48	4.9	CH92-50-3

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.