

CHROMET 91VNB

MMA ELECTRODE FOR ROOT WELDING

PRODUCT DESCRIPTION

MMA electrode - Basic coated for root welding applications made on high purity steel core wire.

Recovery is approx 120% with respect to core wire, 65% with respect to whole electrode.

Moisture resistant coatings giving very low weld metal hydrogen levels.

SPECIFICATIONS

AWS A5.5M	E9015-B91 H4
BS EN ISO 3580-A	E CrMo91 B 3 2 H5

ASME IX QUALIFICATION

QW422	P-No 15E group 1
QW432	F-No 4
QW442	A-No 5

WELDING POSITIONS (ISO/ASME)



PA/1G



PB/2F



PC/2G



PF/3Gu



PE/4G

CHEMICAL COMPOSITION (WELD METAL WT %)

	C	Mn	Si	S	P	Cr	Ni	Mo	Nb	V	N	Cu	Al
Min.	0.08	0.40	--	--	--	8.00	0.4	0.85	0.03	0.15	0.03	--	--
Max.	0.12	1.2	0.30	0.01	0.01	9.5	0.8	1.2	0.07	0.25	0.07	0.25	0.04
Typical	0.1	0.8	0.25	0.008	0.008	8.5	0.5	1.0	0.04	0.2	0.05	0.05	0.01

ALL-WELD MECHANICAL PROPERTIES

PWHT 760°C / 2h	Min. ⁽¹⁾	Typical
Tensile strength (MPa)	620	750
0.2% proof strength (MPa)	530	600
Elongation (%) 4d	17	20
5d	17	18
Impact ISO-V(I) +20°C	47	55

⁽¹⁾ Minimum strength for parent material is lower than AWS requirement shown.

OPERATING PARAMETERS, DC +ve or AC (OCV: 70V Min)

Diameter (mm)	2.5
min A.	60
max A.	100

PACKAGING DATA

Diameter (mm)	2.5
Length (mm)	350
kg/carton	13.5
Pieces/carton	678

STORAGE

3 hermetically sealed ring-pull metal tins per carton, with unlimited shelf life. Direct use from tin will give hydrogen <5ml/100g weld metal during 8h working shift.

For electrodes that have been exposed:

Redry 250 – 300°C/1-2h to ensure H₂ <10ml/100g, 300 – 350°C/1-2h to ensure H₂ <5ml/100g. Maximum 420°C, 3 cycles, 10h total.

Storage of redried electrodes at 100 – 200°C in holding oven, or 50 – 150°C in heated quivers: no limit, but maximum 6 weeks recommended.

FUME DATA

Fume composition (wt %)

Fe	Mn	Ni	Cr	Cu	Pb	F	OES (mg/m ³)
15	5	<0.1	< 3	<0.1	< 0.1	18	1.7