



# WB4102E-16 M.M.A. WELDING ELECTRODE

## Classifications

AWS A5.4-06: E410-16

BS EN ISO 3581-2012: E13 R 5 3

## Product Description

All positional, rutile-basic coated, Martensitic stainless steel electrode with exceptional deslag and arc stability.

## Applications

This electrode is suitable for welding of high strength type 410 12% Cr Martensitic stainless steels. Developed primarily for CA-15 & BS410C21 Castings

Typically applications include : - hydrocrackers, reaction vessels, valve bodies, and turbine sections

## All-Weld Metal Composition (Weight %)

	C	Mn	Si	S	P	Mo	Cr	Ni	Cu
<b>min.</b>	0.05	0.50	0.20	-	-	0.2	11.0	0.30	-
<b>max.</b>	0.12	1.00	0.50	0.020	0.025	0.5	13.5	0.60	0.05

## Typical All-Weld Metal Mechanical Properties

Ultimate Tensile Strength	N/mm <sup>2</sup>	610
Yield Stress/0.2% Proof Stress	N/mm <sup>2</sup>	455
Elongation on 5D	%	34
Impact Energy CV @ -196°C	Joules	-
Stress relieved 740°C / 1 hr		

Electrode Dia (mm)	1.6mm	2.0mm	2.5mm	3.2mm	4.0mm	5.0mm	6.0mm	
Electrode Length (mm)	-	-	350	450	450	450	-	
Current Range (Amps)	<b>min.</b>	-	-	70	90	120	160	-
	<b>max.</b>	-	-	110	140	180	220	-

## Packaging Information

Kg Per Vac-Pac	-	-	2	2	2	2	-
Approx. Pieces Per Kg	-	-	46	22	14	10	-

## Storage and Re-baking

### Storage

It is recommended that the WB range of electrodes is stored in a dry heated store at a minimum temperature of 18°C, and a maximum relative humidity of 60%. To avoid damage to the coatings no more than 6 cartons should be staked on top of another.

### Re-drying

Re-dry @ 350°C for 2 hours and then transfer to holding oven and hold @ 100°C - 200°C, or 50°C-100°C in heated quiver.

## Current Conditions AC OCV70 DC +/- and Welding Positions

