

13.4.Mo.L.B

BASIC MMA ELECTRODE FOR WELDING 410NiMo

PRODUCT DESCRIPTION

Basic metal powder type made on pure low carbon core wire.
Moisture resistant coating giving very low weld metal hydrogen levels.
Diameters above 3.2mm are not recommended for positional welding.
Recovery is about 130% with respect to core wire, 65% with respect to whole electrode.

SPECIFICATIONS

AWS A5.4M	E410NiMo-25*	* 2005 Edition
BS EN ISO 3581	E 13 4 B 6 2	

ASME IX QUALIFICATION

QW432	F-No 1
QW442	A-No 6

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	Cu
Min.	--	--	--	--	--	11.0	4.0	0.40	--
Max.	0.06	1.0	0.90	0.025	0.03	12.5	5.0	0.70	0.50
Typical	0.03	0.7	0.25	0.01	0.01	12	4.5	0.6	0.05

ALL-WELD MECHANICAL PROPERTIES

Typical properties	Min.	PWHT (t)
Tensile strength [MPa]	760	900
0.2% proof strength [MPa]	500	650
Elongation [%] 4d	15	17
5d	15	16
Reduction of area [%]	--	45
Impact ISO-V(U) +20°C	--	50

(t) AWS PWHT: 595-620°C for 1 hour, air cooled. See front page for details on PWHT.

OPERATING PARAMETERS, DC +VE

Diameter (mm)	2.5	3.2	4.0	5.0
min. A	70	80	100	140
max. A	110	140	180	240

PACKAGING DATA

Diameter (mm)	2.5	3.2	4.0	5.0
Length (mm)	350	350	450	450
kg/carton	12.6	14.1	18.0	17.1
Pieces/carton	570	330	261	156

STORAGE

3 hermetically sealed ring-pull metal tins per carton, with unlimited shelf life. Direct use from tin is satisfactory for longer than a working shift of 8h. Excessive exposure of electrodes to humid conditions will cause some moisture pick-up and increase the risk of porosity.

For electrodes that have been exposed:

Redry 300 – 350°C/1-2h to restore to as-packed condition. Maximum 420°C, 3 cycles, 10h total.

Storage of redried electrodes at 50 – 200°C in holding oven or heated quiver: no limit, but maximum 6 weeks recommended. Recommended ambient storage conditions for opened tins (using plastic lid): < 60% RH, > 18°C.

FUME DATA

Fume composition, wt % typical:

Fe	Mn	Ni	Cr	Cu	Mo	V	F	OES (mg/m³)
18	2	0.5	3	<0.2	<0.2	<0.2	18	1.7