

ULTRAMET B904L

BASIC ALL-POSITIONAL MMA PIPE-WELDING ELECTRODE FOR ALLOY 904L

PRODUCT DESCRIPTION

Special basic flux on low carbon, high purity austenitic stainless steel core wire. Careful control of carbon, silicon, manganese and molybdenum contents to give resistance to microfissuring.
Recovery is about 130% with respect to core wire, 65% with respect to whole electrode.

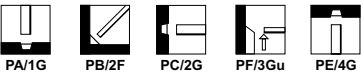
SPECIFICATIONS

AWS A5.4M	E385-15
BS EN ISO 3581	E 20 25 5 Cu N L B 6 2

ASME IX QUALIFICATION

QW432	F-No 5
QW442	A-No 9

WELDING POSITIONS (ISO/ASME)



CHEMICAL COMPOSITION (WELD METAL WT %)

	C	Mn	Si	S	P	Cr	Ni	Mo	Cu	Nb	N
Min.	--	1.0	--	--	--	19.5	24.0	4.2	1.2	--	--
Max.	0.03	2.5	0.90	0.02	0.030	21.5	26.0	5.2	2.0	0.5	0.25
Typical	0.025	2	0.4	0.005	0.02	21	25	4.8	1.8	0.05	0.08

ALL-WELD MECHANICAL PROPERTIES

As welded	Min.	typical
Tensile strength (MPa)	560	620
0.2% proof strength (MPa)	320	440
Elongation [%] 4d	30	41
5d	25	38
Reduction of area %	--	60
Impact ISO-V(J) +20°C	--	50
Hardness cap/mid HV	--	190/215

OPERATING PARAMETERS, DC +VE

Diameter (mm)	2.5	3.2	4.0
min. A	60	75	100
max. A	90	120	155

PACKAGING DATA

Diameter (mm)	2.5	3.2	4.0
Length (mm)	300	350	350
kg/carton	11.4	13.5	14.1
Pieces/carton	471	359	273

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 150 – 250°C/1-2h to restore to as-packed condition. Maximum 250° 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	Mo	Cu	F *	OES (mg/m ³)
8	8	2	7	1.5	0.5	18	0.7

* F=28% for basic coated Ultramet B904L but this does not affect the OES.