MAC TRODE E6818-W2

Description & Applications:

A low hydrogen, basic flux coated electrode on a low carbon mild steel core wire with an extruded moisture resistant chemically basic flux which has controlled iron powder addition. The moisture resistant coating gives a very low weld metal hydrogen levels. The electrode recovery rate in respect to the core wire is approx. 120%. Smooth arc, low spatter, easy strike and restrike. The electrode is mainly used for weathering steels containing a similar controlled addition & is claimed to offer a threefold improvement in corrosion resistance compared with plain C, Mn steels. The weld metal also resists preferential corrosion in sea water, particularly in arctic waters high in oxygen & salinity, & has applications for welding micro alloys & carbon manganese steels in ice breaker vessels & offshore structures. Applications also include architectural structures, bridges & exhaust gas flues. Materials to be welded include Corten A, B1 (b. steel, US Steels) and other proprietary designations. BS4360 Grade WR50A to WR50C, ASTM A588 Grades A, B, C, K. Din 1.8960, 1.8961, 1.8963.

Related Specification:

AWS E8018-W2

Typical All Weld Metal Chemical Analysis %:

C	Si	Mn	P	S	Cr	Ni	Mo	Cu
0.06	0.60	1.00	0.015	0.010	0.60	0.60	0.02	0.50

Typical All Weld Metal Mechanical Properties:

As Welded		Minimum	Typical
Tensile Strength	N/mm²	550	610
0.2% Proof Stress	N/mm²	460	520
Elongation on 4d	%	-	25
Elongation on 5d	%	-	20
Reduction of area	%	-	65
Impact Energy -0°C	Joules	-	150
Impact Energy -20◦C	Joules	-	100
Impact Energy -40◦C	Joules	-	70
Impact Energy -60◦C	Joules	-	40

Microstructure:

In the as welded condition the microstructure is ferritic with a high proportion of acicular ferrite for optimum toughness

Current:

DC + AC (OCV 70) Min

Sizes Available and Recommended Amperages:

2.50mm	3.25mm	4.00mm	5.00mm
70-100	80-140	100-180	140-240

Storage:

If allowed to become damp the electrodes should be baked. To ensure weld metal hydrogen <5ml/100, rebake at 300 - 350◦C for 1-2 hours. Do not exceed 420◦C

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