



## MAC STAIN E120Cu

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### ■ **Description & Applications:**

Designed on a highly alloyed core wire with a high purity lime rutile flux coating that deposits high chromium duplex weld metal with excellent resistance to corrosion and erosion. Designed to weld alloys in cast condition such as ASTM A351, A744, CD4MCu, UNS 93370, ASTM A240, BS3146, ANE 21. Proprietary alloys include Uranus 55 and Ferralium. After welding, the weldmet is water or air quenched from 1100°C and this solution heat treatment ensures both weld and casting have similar microstructures e.g. austenite with 30 to 40% delta ferrite.

### ■ **Related Specification:**

Type 25.6.2.Cu.LR.

### ■ **Typical All Weld Metal Chemical Analysis %:**

C	Mn	Si	S	P	Cr	Ni	Mo	Cu	N <sub>2</sub>
0.03	1.2	0.4	0.02	0.02	26.0	7.5	3.5	2.0	0.16

### ■ **Typical All Weld Metal Mechanical Properties:**

#### As Welded

		<u>Min</u>	<u>Typical</u>	<u>Solution H/T</u> <u>1100°C</u>
Ultimate Tensile Strength	N/mm <sup>2</sup>	700	960	780
0.2% Proof stress	N/mm <sup>2</sup>		750	590
Elongation on 4d %	%	15	22	
Reduction of area	%	28	48	
Impact energy -50°C	Joules	48	50	

### ■ **Current:**

AC/DC (AC OCV 70 min)

### ■ **Sizes Available and Recommended Amperages:**

2.50mm	3.25mm	4.00mm	5.00mm
45-70	70-110	110-140	140-180

### ■ **Storage:**

If allowed to become damp the electrodes should be re-dried for one hour at 250°C before use.

### ■ **Additional Data:**

PRE N = Cr + 3.3 x %Mo + 16 x %N<sub>2</sub> = 38