



MAC TRODE E6410 HR

■ **Description & Applications:**

Basic flux coated low hydrogen electrode made on a mild steel core wire with iron powder and alloying elements added to the flux to provide a martensitic weld metal containing a normal 12% Cr with smaller levels of Ni and Mo. Mac Trode E6410-25 electrodes are designed for welding 410 (12Cr) martensitic stainless steels such as ASTM 410, 403, cast A487 grade CA15 BS410 S21 (EN56A) 410C21 and 403 C21. Such materials and weld metal are heat resistant up to 580°C and display reasonable creep resistance up to 550°C. Metal recovery is some 120% with respect to the core wire and 3.25mm electrodes may be used for positional welding.

■ **Related Specification:**

AWS E410-25

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

C	Mn	Si	S	P	Cr	Ni	Mo	Cu
0.04	0.7	0.4	0.001	0.020	12.0	1.4	0.30	0.04

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

<u>As Welded</u>	<u>Min</u>	<u>790°C/5 hrs</u>	<u>680°C/2 hrs</u>
		<u>+ 700°C/5 hrs</u>	<u>620°C/2 hrs</u>
Ultimate Tensile Strength	620 N/mm ²	660 N/mm ²	770 N/mm ²
Elongation on 4d	18%	25%	21%
0.2% Proof Stress	450 N/mm ²	465 N/mm ²	680 N/mm ²
Reduction of Area		68	65
Hardness	<22	18	19
Charpy Vee Notch +20°C		105	60
Charpy Vee Notch -10°C		85	20

■ **Current:**

DC (+) or AC (Min OCV 80)

■ **Sizes Available and Recommended Amperages:**

3.25mm	4.00mm	5.00mm
70-140	95-180	140-250

■ **Storage:**

If allowed to become damp the electrodes should be re-dried for one hour at 150°C before use.