

# TWE-811A1

AWS A5.29 E81T1-A1C

## Characteristics and Applications:

TWE-811A1 is a titania type flux cored wire, the weld metal contains about 0.5% molybdenum that help prevent deterioration in tensile strength after stress relief and extended service temperature exposure.

It provides excellent weldability with stable arc and efficiency in all position welding.

It is suitable for welding fabrication of 0.5% molybdenum steels and parts of similar composition, such as power plant pipe systems, heat exchanger and boilers, etc.

## Notes on usage:

1. Use DC(+) polarity.
2. Use 100% CO<sub>2</sub> shielding gas.
3. Preheat at 100-200°C and PWHT at 600-650°C.
4. Keep the product dry, while it is stored or delivered.

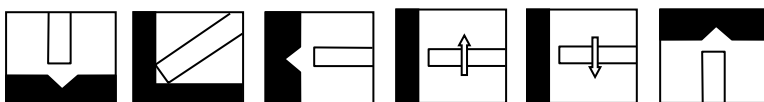
## Typical chemical composition of weld metal (wt%):

| C    |      |      | P     | S     | Mo   |
|------|------|------|-------|-------|------|
| 0.04 | 0.25 | 0.65 | 0.014 | 0.009 | 0.55 |

## Typical mechanical properties of weld metal:

| Yield strength<br>MPa(ksi) | Tensile strength<br>MPa(ksi) | Elongation<br>% | PWHT      |
|----------------------------|------------------------------|-----------------|-----------|
| 570(83)                    | 620(90)                      | 26              | 620°C×1hr |

## Welding position:



## Sizes and recommended parameter range ( DC + ):

Stick out:15-25(mm), flow rate:20-25(l/min):

| Diameter(mm) |  | 1.2                |
|--------------|--|--------------------|
| Position     |  |                    |
| F HF         |  | 130-300A / 26V-36V |
| VU OH        |  | 130-240A / 24V-28V |

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