TWE-811B2

AWS A5.29 E81T1-B2C

Characteristics and Applications:

TWE-811B2 is a gas-shielded and all-position flux-corded wire intended for $1\sim1.25\%$ Cr-0.5%Mo low alloy steel welding. It is used with 100%CO₂ shielding gas and offers good operator appeal. TWE-811B2 is ideal for welding Cr-Mo steel pipe and Cr-Mo steel, which need high creep resistance.

Notes on usage:

- 1. Pre-heat at 150-300°C, and PWHT at 690°C x1hr.
- 2. Keep the product dry, while it is stored or delivered.
- 3. Use 99.8% or higher purity of CO₂ Gas.
- 4. Use DC(+) polarity.

Typical chemical composition of weld metal (wt%):

| С | Mn | Si | Р | S | Cr | Мо |
|------|------|------|-------|-------|------|------|
| 0.06 | 0.60 | 0.28 | 0.014 | 0.008 | 1.12 | 0.55 |

Typical mechanical properties of weld metal:

| Yield strength | Tensile strength | Elongation | PWHT |
|----------------|------------------|------------|------------|
| MPa(ksi) | MPa(ksi) | % | |
| 560(81) | 640(93) | 23 | 690°C x1hr |

Welding position:













Sizes and recommended parameter range (DC +): Stick out:15-25(mm), gas flow rate:20-25(I/min):

| Diameter(mm) Position | 1.2 | 1.6 |
|-----------------------|-------------------|-------------------|
| F HF | 180A-300A/26V-36V | 180A-350A/26V-38V |
| VU OH | 150A-220A/24V-28V | 160A-230A/24V-28V |