

ST-80B2R

Type : TIG

Conformances

AWS A5.28/ ASME SFA5.28 ER80S-B2

Welding Position

Current

GTAW: DC-

Applications

- High pressure pipe & Pressure vessels

Shielding Gas

Ar

Diameter / Packaging

| Diameter | Length mm(in) |
|------------|---------------|
| mm (in) | 5kg (11lbs) |
| 2.0 (5/64) | ✓ |
| 2.4 (3/32) | ✓ |
| 3.2 (1/8) | ✓ |

Features

- Careful control of preheat, interpass temperatures, postheat is essential to avoid cracking.
- For welding 0.5~1.25Cr-0.5Mo steels for elevated temperatures and corrosive service
- X-factor value of wire is 10ppm or less

Typical Chemical Composition of the Wire (%)

| C | Si | Mn | S | P | Cu | Ni | Cr |
|-------|-------|-------|-------|-------|-------|-------|----------|
| 0.095 | 0.49 | 0.645 | 0.011 | 0.008 | 0.12 | 0.021 | 1.320 |
| Mo | V | Al | Nb | Sb | Sn | As | X-Factor |
| 0.48 | 0.002 | 0.002 | 0.002 | 0.001 | 0.002 | 0.003 | 9.6 ppm |

Typical Mechanical Properties of All-Weld Metal

| YS Mpa(lbs/in ²) | TS Mpa(lbs/in ²) | EL (%) | Temp °C(°F) | CVN-Impact Value J (ft·lbs) | PWHT |
|---------------------------------|---------------------------------|-----------|----------------|--------------------------------|-------------|
| 490 (71,000) | 580 (84,100) | 22 | 20 (68) | 120 (88.5) | 620°C × 1hr |

SMAW

SAW

GMAW

GTAW

FCAW

Non-FERROUS

APPENDIX