

ST-91B9

A213 T91(Seamless tube), A335 P91(Seamless pipe), A387 Gr91(Plate), A182/A336 F91(forging), A234 WP91

Conformances

AWS A5.28/ ASME SFA5.28 ER90S-B9
EN ISO 21952-A W CrMo91

Applications

- Headers, main steam piping and turbine casings

Features

- Good high temp. creep resistance
- In the PWHT condition the microstructure consists of tempered martensite with alloy carbides

Current

GTAW: DC -

Shielding Gas

Ar

Diameter / Packaging

| Diameter | |
|-------------|----------|
| mm (in) | 5kg*1000 |
| 1.0 (0.039) | |
| 1.2 (0.045) | |
| 1.6 (1/16) | |
| 2.0 (5/64) | |
| 2.4 (3/32) | √ |
| 2.6 (0.10) | |
| 3.2 (1/8) | |

Typical Chemical Composition of the Wire(%)

| C | Si | Mn | Cr | Ni | Mo | Shielding Gas |
|------|------|------|------|------|------|---------------|
| 0.10 | 0.30 | 0.47 | 8.91 | 0.67 | 0.96 | Ar |

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) |
|------------------------|---------------------------------|---------------------------------|-----------|----------------|--------------------------------|
| As welded with 100% Ar | 746 (108,200) | 830 (121,000) | 21 | 0 (32) R.T | 180 (133) 190 (137) |