Applications

S-9018.M can be used for welding of high tensile weather proof steel used in pressure vessels, bridges, rolling stocks, machines.

Characteristics on Usage

S-9018.M is an iron powder low hydrogen type electrode which provides good workability in all positions.

The weld metal has a good crack resistibility because of less hydrogen contents. X-ray performance and usability are good.

Notes on Usage

① Dry the electrodes at 350~400°C(662~752°F) for 60 minutes before use.

- ② Adopt back step method or strike the arc on a small plate prepared for this particular purpose because arc striking on base metal is in danger of initiating cracking.
- ③ Preheat at 80~100°C(172~212°F). The temperature to be applied varies in accordance with plate thickness and kind of steel.

Current AC or DC +

Welding Position

1G

(PA)



| Typical Chemical Composition of All-Weld Metal (%) | | | | | | |
|--|------|------|-------|-------|------|------|
| С | Si | Mn | Р | S | Ni | Мо |
| 0.05 | 0.46 | 1.21 | 0.017 | 0.011 | 1.47 | 0.22 |

Typical Mechanical Properties of All-Weld Metal

| YS | TS | EL | Temp. | CVN-Impact Value |
|--------------|--------------|------|-----------|------------------|
| MPa(lbs/in²) | MPa(lbs/in²) | (%) | °C (°F) | J (ft · Ibs) |
| 585 (85,000) | 646 (93,800) | 27.6 | -50 (-58) | 89 (66) |

| Approval | I Packing | | |
|----------|-----------|---|--|
| ABS | | 5 kg (11 lbs) 5 kg (11 lbs)×4 : 20kg(44 lbs) | |

| Sizes Available and Recommended Currents (Amp.) | | | | | | | |
|---|------------|-----------|------------|------------|-------------|--|--|
| Size mm (in) | 2.6 (3/32) | 3.2 (1/8) | 4.0 (5/32) | 5.0 (3/16) | 6.0 (15/64) | | |
| Length mm(in) | 350 (14) | 350 (14) | 400 (16) | 400 (16) | 450 (18) | | |
| F | 70~100 | 90~140 | 130~190 | 180~240 | 250~300 | | |
| V-up, OH | 60~80 | 80~120 | 120~170 | 150~200 | - | | |