

# S-7018.1H

TYPE : Basic

AWS A5.1 / ASME SFA5.1 E7018-1 H4R  
JIS Z3211 E4918  
EN ISO 2560-A - E42 4 B 3 2 H5

## Applications

S-7018.1H can be used for welding of high tensile steel, such as bridges, buildings, rolling stock and low temperature used for steel structure.

## Characteristics on Usage

S-7018.1H is an iron powder low hydrogen type electrode. Its coating contains much iron powder, which increasing working efficiency. Its usability is good with direct current applications and very low hydrogen electrode. (HDM < 5mℓ/100g)

## Notes on Usage

- ① Dry the electrodes at 350~400°C (662~752°F) for 60 minutes before use.
- ② Keep the arc as short as possible, and avoid large width of weaving.
- ③ Adopt back step method or strike the arc on a small steel plate prepared for this particular purpose to prevent blow hole at the arc starting.

## Welding Position



1G (PA)    2F (PB)    3G (PF)    4G (PE)

## Current

AC or DC +

## Typical Chemical Composition of All-Weld Metal (%)

| C    | Si   | Mn   | P     | S     |
|------|------|------|-------|-------|
| 0.06 | 0.25 | 1.35 | 0.014 | 0.005 |

## Typical Mechanical Properties of All-Weld Metal

| YS<br>MPa(lbs/in <sup>2</sup> ) | TS<br>MPa(lbs/in <sup>2</sup> ) | EL<br>(%) | Temp.<br>°C (°F) | CVN-Impact Value<br>J (ft · lbs) |
|---------------------------------|---------------------------------|-----------|------------------|----------------------------------|
| 493 (71,500)                    | 566 (82,100)                    | 30.8      | -45 (-49)        | 152 (112)                        |

## Approval

ABS, BV, DNV, GL, LR, CWB

## I Packing

|             |                                       |
|-------------|---------------------------------------|
| Packet      | 5 kg (11 lbs)                         |
| Carton      | 5 kg (11 lbs) × 4 : 20kg(44 lbs)      |
| Vacuum Pack | 5 kg (11 lbs)                         |
| Carton      | 5 kg (11 lbs) × 4 : 20kg (44 lbs)     |
| Vacuum Pack | 1.5 kg (3.3 lbs)                      |
| Carton      | 1.5 kg (3.3 lbs) × 10 : 15kg (33 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) |
| Length mm(in) | 350 (14)   | 400 (16)  | 450 (18)   | 450 (18)   |
| F             | 60~90      | 90~140    | 130~190    | 180~240    |
| V-up, OH      | 50~80      | 80~120    | 120~170    | 150~200    |