

## Covered Electrodes

# K-7018NP

For 490MPa high tensile steel

### Classifications

|                    |                    |            |              |
|--------------------|--------------------|------------|--------------|
| EN ISO 2560-A:2006 | : E 42 4 B 42 H5   | JIS Z 3211 | : E4918-1 H5 |
| EN ISO 2560-B:2006 | : E 49 18-1 A U H5 |            |              |
| AWS A5.1-04        | : E7018-1 H4R      |            |              |

### Description

- Covering is low hydrogen, iron powder type for welding of nuclear reactor vessels, LPG tanks, LPG storage tanks and similar installations at low temperature.
- Good impact value at -45°C
- Excellent mechanical properties and radiographic soundness.
- Redry the electrode at 300~400°C for 1~2 hours prior to use.

### Welding positions



### Typical chemical composition of all-weld metal (%)

| C    | Si   | Mn*  | P     | S     | Ni*  | Cr*  | Mo*  | V*   | *Sum |
|------|------|------|-------|-------|------|------|------|------|------|
| 0.05 | 0.45 | 1.18 | 0.013 | 0.012 | 0.25 | 0.03 | 0.01 | 0.02 | 1.49 |

### Typical mechanical properties of all-weld metal

|               | Y.S<br>(MPa) | T.S<br>(MPa) | El.<br>(%) | IV (J) |       | Remarks |
|---------------|--------------|--------------|------------|--------|-------|---------|
|               |              |              |            | -30°C  | -45°C |         |
| AWS A5.5      | min. 400     | min. 490     | min. 22    | ≥ 47   | ≥ 27  |         |
| EN ISO 2560-A | min. 420     | 500-640      | min. 20    | ≥ 47   | ≥ 27  |         |
| Example       | 510          | 570          | 32         | 110    | 75    | AW      |

\* AW : As-Welded

### Sizes available and recommended currents (DC +)

| Dia.   | (mm)   | 2.6    | 3.2    | 4.0     | 5.0     | 6.0     |
|--------|--------|--------|--------|---------|---------|---------|
| Length | (mm)   | 350    | 350    | 400     | 400     | 450     |
| Amp.   | F      | 70~100 | 90~130 | 150~190 | 160~220 | 180~230 |
| (A)    | V · OH | 60~90  | 85~120 | 110~160 | 130~180 | -       |

### Approvals

| ABS   | BV   | DNV  | GL   | LR    |
|-------|------|------|------|-------|
| 3YH4R | 3YH5 | 3YH5 | 3YH5 | 3YH15 |