

# K-8018

For 560MPa high tensile steel

## Classifications

|                    |                   |
|--------------------|-------------------|
| EN ISO 2560-A:2006 | : E 46 3 B 32 H10 |
| EN ISO 2560-B:2006 | : E 55 18-G A H10 |
| AWS A5.5-06        | : E8018-G         |
| KS D 7006          | : E5316           |
| JIS Z 3211         | : E5518-G         |

## Approvals

|       |           |
|-------|-----------|
| ABS   | : 3Y      |
| Other | : JIS, CE |

## Description

- Covering is low hydrogen, iron powder type for welding of 560MPa class high tensile steel in ships, bridges, penstocks and rails
- Excellent mechanical properties and radiographic soundness
- Satisfactory bead appearance and slag removal
- 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    |
|------|------|------|-------|-------|------|------|------|------|
| 0.06 | 0.56 | 1.32 | 0.018 | 0.011 | 0.35 | 0.03 | 0.25 | 0.01 |

## Typical mechanical properties of all-weld metal

|               | Yield Strength | Tensile Strength | Elongation | Impact Value (J) |        | Remarks |
|---------------|----------------|------------------|------------|------------------|--------|---------|
|               | (MPa)          | (MPa)            | (%)        | -20 °C           | -30 °C |         |
| AWS A5.5      | Min. 460       | Min. 550         | Min. 19    |                  |        |         |
| EN ISO 2560-A | Min. 460       | 530-680          | Min. 20    |                  | ≥ 47   |         |
| Example       | 490            | 590              | 28         | 95               | 80     | AW      |

\*AW: As-welded

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

|          |       |       |        |         |         |         |
|----------|-------|-------|--------|---------|---------|---------|
| Diameter | (mm)  | 2.6   | 3.2    | 4.0     | 5.0     | 6.0     |
| Length   | (mm)  | 350   | 350    | 400     | 400     | 450     |
| Amperage | F     | 60-90 | 90-130 | 140-190 | 180-230 | 250-310 |
|          | V. OH | 50-80 | 80-110 | 120-170 | 160-200 | -       |