

# K-10018M

For 690MPa high tensile steel

## Classifications

EN 757:1997 : E 55 3 Z B 32 H10  
 AWS A5.5-06 : E10018-M

KS D 7006 : E7016  
 JIS Z 3211 : E6918-N3M2

## Description

- Covering is low hydrogen, iron powder type for welding of 690MPa class high tensile steel in bridge, pressure vessels, penstocks and machinery.
- Excellent mechanical properties especially in notch toughness.
- 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    |
|------|------|------|-------|-------|------|------|------|------|
| 0.07 | 0.46 | 1.35 | 0.015 | 0.012 | 1.63 | 0.20 | 0.28 | 0.01 |

## Typical mechanical properties of all-weld metal

|          | Y.S<br>(MPa) | T.S<br>(MPa) | El.<br>(%) | IV (J) |       | Remarks |
|----------|--------------|--------------|------------|--------|-------|---------|
|          |              |              |            | -30°C  | -50°C |         |
| AWS A5.5 | 610~690      | min. 690     | min. 20    |        | ≥ 27  |         |
| EN 757   | min. 550     | 610~780      | min. 18    | ≥ 47   |       |         |
| Example  | 640          | 750          | 29         | 80     | 45    | AW      |

\* AW : As-Welded

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

|             |             |                  |                    |                    |              |
|-------------|-------------|------------------|--------------------|--------------------|--------------|
| Dia.        | (mm)        | 3.2              | 4.0                | 5.0                | 6.0          |
| Length      | (mm)        | 350              | 400                | 400                | 450          |
| Amp.<br>(A) | F<br>V · OH | 90~130<br>80~115 | 130~180<br>110~170 | 180~240<br>140~200 | 250~320<br>— |

## Approvals

JIS, CE