

Covered Electrodes

KM-800

For hardfacing (Hv 700)

Classifications

KS D 7035 : DF3C-700-B
JIS Z 3251 : DF3C-700-B

Description

- Covering is low hydrogen type for hardfacing of impellers, pump casings.
- The deposited weld metal has an extremely hard martensite structure.
- Machining is impossible as welded.
- Preheat at 200°C and over.
- Postheat treat at about 600°C immediately after welding.
- 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 | W |
|------|------|------|-------|-------|------|------|------|------|
| 0.47 | 1.45 | 1.51 | 0.017 | 0.012 | 0.03 | 4.10 | 0.02 | 0.01 |

Typical mechanical properties of all-weld metal

| Conditions | As welded | | Heat treated |
|------------|-----------------------|-----------------------|---------------------|
| | Interpass temp. 150°C | Interpass temp. 200°C | 600°C stress relief |
| HV | 723 | 810 | 535 |
| HRC | 61.1 | 64.4 | 51.4 |
| HS | 83 | 89 | 69 |

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. (A) | F | 90~130 | 140~170 | 190~240 | 220~300 |