# Submerged Arc Flux-Cored Wire / Flux

KF-810 KCH-17-SX Classification

AWS — —

JIS — —

EN 14700 UP3-GF-350-P GB — —

#### **Applications and Features**

- (1) KCH-17-SX and KF-810 are a submerged arc flux-cored wire and a flux which produces a low carbon, low alloy weld deposit with a typical hardness of 35 HRC.
- (2) It provides not only good metal-to-metal abrasion resistance but also good resistance to compression and cold work deformation. The impact resistance is excellent and the crack susceptibility is low.
- (3) There is no hot crack for multi-layer build-up up to 20 mm.
- (4) The weld metal can be machined and cut after welding.
- (5) It is suitable for repairing crane wheels, idlers and mine car wheels.

#### **Welding Instruction**

- (1) The hardness of weld metal will decrease when the temperature of stress relief exceeds 480°C.
- (2) The preheat and interpass temperature should be controlled between 200-400°C for massive work pieces and high curvature surface to prevent weld cracking caused by high stress.

## Typical Chemical Composition of Weld Metal (wt. %)

| С     | Si   | Mn   | Cr  | Мо  |
|-------|------|------|-----|-----|
| 0.080 | 0.60 | 2.60 | 3.0 | 0.8 |

### Typical Hardness of Weld Metal

|                | 1st layer | 2nd layer | 3rd layer |
|----------------|-----------|-----------|-----------|
| Hardness (HRC) | 26~30     | 30~35     | 34~38     |

### Size and Suggested Operating Range (DC+)

| Size (mm) | Voltage (V) | Current (A) | ESO (mm) |
|-----------|-------------|-------------|----------|
| 3.2       | 30~32       | 380~400     | 25~30    |