

## OK NiFe-CI

A nickel-iron electrode for welding normal grades of cast iron and for joining them to steel. Can be used for malleable nodular cast iron and alloy cast iron. It has a special iron jacketed Ni core wire, which gives the electrode much improved current carrying capacity compared to electrodes with a homogeneous core wire. The electrode produces a weld metal stronger and more resistant to solidification cracking than the pure nickel electrode types. Typical applications are repair of pump bodies, heavy machine sections, gear teeth, flanges and pulleys.

### Specifications

|                        |                                                        |
|------------------------|--------------------------------------------------------|
| <b>Classifications</b> | SFA/AWS A5.15 : ENiFe-CI<br>EN ISO 1071 : E C NiFe-1 3 |
| <b>Welding Current</b> | AC, DC+                                                |
| <b>Alloy Type</b>      | Ni-Fe alloy                                            |
| <b>Coating Type</b>    | Basic Special high graphite                            |

### Typical Tensile Properties

| Condition | Yield Strength | Tensile Strength |
|-----------|----------------|------------------|
| ISO       |                |                  |
| As Welded | 380 MPa        | 560 MPa          |

### Typical Weld Metal Analysis %

| C   | Mn  | Si  | Ni | Al  | Cu  | Fe |
|-----|-----|-----|----|-----|-----|----|
| 0.9 | 0.6 | 0.5 | 53 | 0.4 | 0.9 | 44 |

### Deposition Data

| Diameter       | Current   | Voltage | Efficiency (%) | Fusion time per electrode at 90% I max | Deposition Rate |
|----------------|-----------|---------|----------------|----------------------------------------|-----------------|
| 2.5 x 300.0 mm | 60-100 A  | 22 V    | 70 %           | 45 sec                                 | 0.8 kg/h        |
| 3.2 x 350.0 mm | 80-150 A  | 23 V    | 70 %           | 56 sec                                 | 1.2 kg/h        |
| 4.0 x 350.0 mm | 100-200 A | 23 V    | 70 %           | 59 sec                                 | 1.6 kg/h        |