REPAIR AND MAINTENANCE CAST IRON ALLOYS



OK NiFe-CI-A

A nickel-iron cored electrode for joining normal grades of cast iron, such as grey-, ductile- and malleable irons. It is also suitable for rectification and repair of these grades and for joining them to steel. Deposition is done on cold or slightly preheated cast iron. The electrode produces a weld metal stronger and more resistant to solidification cracking than that of the pure nickel electrode type. It is specially suited for high duty welds in ductile irons and for welding grey irons with increased contents of sulphur and phosphorous. Typical applications include repair of pump bodies, heavy machine sections, gear teeth, flanges and pulleys.

| Classifications: SFA/AWS A5.15:ENiFe-Cl-A, EN ISO 1071:E C NiFe-Cl-A 1 | |
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| Typical Tensile Properties | | | | |
|----------------------------|------------------|--|--|--|
| Condition | Tensile Strength | | | |
| AWS | | | | |
| As welded | 375 MPa (54 ksi) | | | |

| Typical Weld Metal Analysis % | | | | | | | |
|-------------------------------|-----|-----|----|-----|----|--|--|
| С | Mn | Si | Ni | Al | Fe | | |
| 1.5 | 0.8 | 0.7 | 51 | 1.4 | 46 | | |

| Deposition Data | | | | | | | |
|---------------------------------|----------|-----------------------------|------------------------------------|--|------------------------------|--|--|
| Diameter | Current | kg weld metal/kg electrodes | Number of electrodes/kg weld metal | Fusion time per electrode at 90% I max | Deposition rate 90% I max | | |
| 2.5 x 300 mm (3/32 x 12 in.) | 55-75 A | 0.70 | 90 | 70 s | 0.6 kg/h (1.3 lb/h) | | |
| 3.2 x 350 mm (1/8 x 14 in.) | 75-100 A | 0.70 | 45 | 90 s | 0.9 kg/h (2.0 lb/h) | | |
| 4.0 x 350 mm (5/32 x 14 in.) | 85-160 A | 0.70) | 30 | 70 s | 1.8 kg/h (4.0 lb/h) | | |