

CI-400

For repairing of cast iron products.

AWS A5.15 E NiFe-CI
KS D7008 DFC NiFe
JIS Z3252 DFC NiFe

Applications

For welding of nodular cast iron, repairing and joining of various cast iron products. Also suitable for underlaying of hardsurfacing.

Characteristics

CI-400 is a graphite type coated electrode whose weld metal has the composition of 55%Ni-45% Fe. As the hardening of fusion zone in cast iron is small and the coefficient of thermal expansion of the weld metal is about same as that of cast iron, mechanical properties and crack resistibility of the weld metal are good.

Notes on usage

- (1) Clean base metal before welding.
- (2) If there is a possibility that cracking spreads, make the stopholes at both ends of repairing part.
- (3) Keep bead length less than 50mm to disperse welding heat. Adopt back step, stepping stone or symmetry method by turns.
- (4) Hot peen in every pass.
- (5) It is not necessary preheating and postheating in general but satisfactory results can be obtained by preheating at 100~200°C in accordance with kind, shape and size of base metal.

Typical chemical composition of weld metal (%)

| C | Mn | Si | P | S | Ni | Fe |
|------|-----|------|-------|-------|------|-----|
| 0.98 | 0.8 | 0.32 | 0.005 | 0.004 | 55.1 | Rem |

Typical mechanical properties of weld metal

| |
|---|
| TS N/mm ² (kgf/mm ²) |
| 560(57) |

Size & recommended current range (AC or DC +)

| | | | | | |
|-----------|---|-------|--------|---------|---------|
| Dia. (mm) | | 2.6 | 3.2 | 4.0 | 5.0 |
| L (mm) | | 300 | 300 | 350 | 350 |
| Amp. | F | 60-90 | 80-120 | 120-150 | 140-190 |

• Tip Color : Red