

ENI 416 (NiFe)

Coated Electrode for Cast Irons -

| Standards | |
|---------------------|---------------|
| AWS/ASME SFA - 5.15 | ENiFe-CI |
| EN ISO 1071 | E C NiFe-CI 3 |
| TS EN ISO 1071 | E C NiFe-CI 3 |

| Materials |
|-------------------------|
| DIN |
| GGG 40.3 - GGG 70 |
| GTS 35-10 - GTS 70-02 |
| GTW 35-04 - GTW S 38-12 |

Properties and Applications

Electrode having a nickel-iron core wire, for welding cast iron with or without preheating. The weld metal features a low coefficient of thermal expansion and as a result, little shrinkage. It has higher strength properties than pure nickel weld metal and is therefore preferably used for welding nodular cast iron, white and black heart malleable cast iron, as well as austenitic nodular cast iron or joining these metals to components made of steel, copper or nickel materials. Easy arc striking and restriking, stable arc, smooth bead. Weld metal is machinable. Weld short beads.



Typical Chemical Values of Weld Metal

| Type of Analysis | C | Si | Mn | Ni | Al | Fe |
|------------------|------|------|------|-------|------|-------|
| Weld Deposit | 0.45 | 1.60 | 0.65 | 52.00 | 0.80 | 44.50 |

Typical Mechanical Values of Weld Metal

| Test Condition | Hardness (HB) |
|----------------|---------------|
| As welded | 210 |

Application Information

Welding Positions



Welding Parameters & Efficiency

| Diameter x Length (mm) | Current (A) |
|------------------------|-------------|
| 4.00x350 | 110-140 |
| 3.25x350 | 80-110 |
| 4.00x400 | 110-140 |
| 2.50x300 | 50-80 |
| 3.25x300 | 80-110 |

Polarity:



Packaging Information

| Product Code | Diameter X Length (mm) | Pieces per Box (-) | Weight Of The Box (kg) | Boxes Per Package | Weight Of The Package | Packaging Type |
|--------------|------------------------|--------------------|------------------------|-------------------|-----------------------|----------------|
| 16003GBEM2 | 2.50x300 | 60 | 1.0 | 12 | 13.7 | Plastic Box |
| 16003GDEM2 | 2.50x300 | 160 | 2.5 | 3 | 8.0 | Plastic Box |
| 16003GJEM2 | 2.50x300 | 112 | 1.8 | 10 | 18.2 | VAC Box |

| | | | | | | |
|------------|----------|----|-----|----|------|-------------|
| 16003MBEM2 | 3.25x300 | 37 | 1.0 | 12 | 13.7 | Plastic Box |
| 16003MDEM2 | 3.25x300 | 93 | 2.5 | 3 | 8.0 | Plastic Box |
| 16003MJEM2 | 3.25x300 | 65 | 1.8 | 10 | 18.2 | VAC Box |
| 16003NJEM2 | 3.25x350 | 64 | 2.0 | 10 | 0.0 | VAC Box |
| 16003QJEM2 | 4.00x350 | 44 | 2.0 | 10 | 0.0 | VAC Box |
| 16003RBEM2 | 4.00x400 | 32 | 1.8 | 10 | 19.0 | Plastic Box |
| 16003RJEM2 | 4.00x400 | 48 | 2.5 | 9 | 23.1 | VAC Box |

Storage & Re-Drying Information

It can be dried maximum 5 times.
It has to be dried at 150°C for 1 hour.