

CARBOCAST NiFe is an S C NiFe1 type solid MIG/MAG welding wire, supplied layer wound for welding of cast iron. Suitable for use with inert or with Ar-CO2 mixed gases.

CARBOCAST NiFe is used for dissimilar joining and surfacing of cast iron without or with only a minimum preheating of < 300°C, cast iron cold welding. Used for welding applications on new cast-iron components made of globular gray-cast iron (GJS/GGG) and dissimilar joining of GJS to steel. Suitable for cast irons with globular graphite (GJS), black-heart cast iron (GJMB), white-heart cast iron (GJMW), austenitic cast iron and dissimilar joints to steel.

Weld at low heat input with short beads, ~10 to 30mm, and hammer pein. Weld metal can be machined.

| Classification       | Approvals | Grade |
|----------------------|-----------|-------|
| EN ISO 1071: S NiFe1 | DB        | ●     |

### Chemical analysis (Typical values in %)

| C   | Mn  | Si  | Ni | Cu  | Fe | Al  |
|-----|-----|-----|----|-----|----|-----|
| 0.9 | 0.8 | 0.7 | 55 | 1.0 | 42 | 0.5 |

### All-weld metal Mechanical Properties


| Heat Treatment | Yield Strength (MPa) | Tensile Strength (MPa) | Elongation A5 (%) | Impact Energy ISO - V (J) | Hardness   |
|----------------|----------------------|------------------------|-------------------|---------------------------|------------|
|                |                      |                        |                   | +20 °C                    |            |
| As Welded      | >290                 | >400                   | >20               | >80                       | 150-200 HB |

Gas test: 98% Ar+2% CO2

**Shielding Gas** - EN ISO 14175 : I1, M12, M13

### Materials

GJS-350 - GJS-700; GJMW-350-4 - GJMW-360-12; GJMB-300 - GJMB-700

| Storage                          | Current condition and welding position   |
|----------------------------------|--|
| Keep dry and avoid condensation. | DC+  |
|                                  |  |

### Packaging data

| Packaging Type        | BS300      |
|-----------------------|------------|
| Diam(mm) / weight(kg) | 15         |
| 1.0                   | W000283706 |
| 1.2                   | W000283707 |