CARBO WELD
SCHWEISSMATERIALIEN GMBH

CARBO NiFe 60/40 K

International Standards	DIN 8573	E NiFe-1 – BG 11
	AWS A 5.15	ENiFe-CI

Typical applications and characteristics

Basic-graphite special coated electrode with a copper plated ferro-nickel core. Suitable for joining and repairing all types of grey cast iron, also for joining cast iron with steel, but especially for nodular cast iron.
The weld metal alloy essentially results from the core wire which contains abt. 60 % Ni and + 40 % Fe + Cu.
This electrode excels by very high crack-resistance and high tensile-strength of the weld metal. Even in refined zones the seam is still machi-nable.

Operating temperature

same as base material

Welding instructions/ Base materials

Thoroughly clean the surface of the work-piece make sure it is exempt from grease (previous grinding). When welding on cast iron, heat input should as low as possible (low amperage). The bead must not be wider than twice the core wire diameter and not be longer than ten times the core wire diameter. To limit internal stress of the base metal, peering of the beads is recommended after each pass.
On principle, should be welded on DC -.The highest crack-resistance can be obtained when welding with alternating current .
The constant alternating of polarity promotes a bonding on critical cast parts through a flat onflowing seam

Mechanical properties of all-weld metal (typical values)

Tensile strength R_m N/mm²²	Yield strength $R_{p0,2}$ N/mm²	Elongation A_5 %	Hardness HB
500	350	10	ca. 190

Weld metal analysis (typical, wt. %)

C	Si	Mn	Ni	Fe	Cu
1,1	1,2	1	54	43	0,6

Current

= + / - , ~ / 50 V

Welding positions

PA, PB, PC, PD, PE, PF

Rebaking

1 h, 120 °C + / - 10 °C (if required)

Dia./Length	Amperage (A)	Pcs./packet	Pcs./carton	kg/1000	kg/ packet	kg/ carton
2,5 x 300	55 - 60	314	1258	15,9	5,0	20,0
3,2 x 350	60 - 80	160	639	31,3	5,0	20,0
4,0 x 350	90 - 120	105	422	47,4	5,0	20,0

Rev. 000