

CARBO NiFe 60/40

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

Approvals ---

Typical applications and characteristics Basic-graphite special coated electrode with a 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. The colour of the deposit is very similar to the base material, and corrosion will be identical to the base material later on. This electrode excels by very high crack-resistance and high tensile-strength of the weld metal. Even in refined zones the seam is still machinable.

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, peening of the beads is recommended after each pass. On principle, "CARBO NiFe 60/40" should be welded on DC +. This is particularly important for crack-sensitive base materials in order to keep heat input as low as possible. Welding on DC – or AC is possible but not recommended for all applications.

Mechanical properties of all-weld metal (typical values)	Tensile strength R_m N/mm²²	Yield strength R_{p0,2} N/mm²	Elongation A₅ %	Hardness HB
	500	350	10	approx. 170

Weld metal analysis (typical, wt. %)	C	Si	Mn	Ni	Fe
	1,1	1,2	0,95	54	42

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
5,0 x 450	120 - 140	63	252	95,2	6,0	24,0