

International standards	DIN EN ISO 1071	E C Ni-CI 1
	AWS A5.15	ENi-CI

Approvals ---

Typical applications and characteristics Basic-graphite special coated electrode with a pure nickel core wire. Suitable for cold welding on grey cast iron, malleable cast iron, and cast steel as well as repair welding on castings showing symptoms of fatigue. Excellent welding properties also for welding with low amperage. Quietly and intensely flowing weld metal, only few spattering, easily removable slag. The weld seam is file-soft and machinable even in the transitional zone between the seam and the base material.

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. 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, hammering of the beads is recommended after each pass.

When welding on DC - the weld metal flows very neatly and produces a flat bead while beads welded on the positive pole are cambered, due to the high amount of weld metal deposited as a consequence of low heat input. The aspect of the weld produced with alternate current and the welding characteristics of the electrode are something in-between the results obtained on direct current.

On DC + the weld metal flows more uniformly.

Mechanical properties of all-weld metal (typical values)

Tensile strength R_m N/mm ²	Elongation A_5 %	Hardness HB
400	8	approx. 160

Weld metal analysis (typical, wt. %)

C	Si	Mn	Ni	Cu
0,7	0,3	1,0	balance	0,6

Current = + / - , ~ 50 V

Welding positions PA, PB, PC, PD, PE, PF, PG

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 350	55 - 60	250	1000	20,0	5,0	20,0
3,2 x 350	80 - 90	147	590	33,9	5,0	20,0
4,0 x 350	100 - 120	97	390	51,3	5,0	20,0
5,0 x 450	120 - 140	58	233	103,1	6,0	24,0

Rev. 000

Statements on composition and application are just for the applier's information. Statements on mechanical properties always refer to the all-weld-metal according to valid standards. Carbo-Weld may change the characteristics of its products without notice. We recommend the applier to check our products for their special application autonomously.