

## NIQUEL PLUS

## NICKEL BASED WELDING ROD TO WELD CAST IRON IN ALL POSITIONS

CLASSIFICATION: A.W.S: E-NICI

**APPLICATIONS:** Cracks in monoblocks, casings, machinery, drill and lathe foundations, motor casings, etc. It is used in the production and repair of gear boxes, valves, pressure chambers, foundries and in any kind of foundry process involving hydrostatic pressure. It is also used to repair defects in foundry production lines where casting defects have been detected.

**CHARACTERISTICS AND PROCEDURE:** This welding rod provides top resistance to cracks in critical tasks. Its filler metal deposits with very high Nickel content are easy to machine, present no risks of hardening and are pore free. It has high mechanical resistance and good elongation. Cast grey iron parts have been successfully joined to other metals, specially with steel, with copper and with nickel alloys. Prepare the joints carefully. Chamfer the edges between 75° and 90° with a Vilchis Chanfer Rod electrode to a depth of 2/3 of the part total thickness. Crack ends should be drilled. Keep the arc short and make sure the electrode is perpendicular to the part. Use the lowest possible AMP. Make spaced weld beads between 30 to 40 mm long, alternated all along the part to avert overheating as a safety precaution. Otherwise, the welding rod will get red hot and operation will become inefficient. Hammer the weld beads slightly and make sure the part does not overheat beyond the temperature you can withstand with the palm of your hand. To weld very difficult, complicated parts, it is recommended to preheat up to 200° C. Make sure you keep this temperature during the whole operation. Once you finish welding, let the part cool down slowly by covering it with asbestos or lime.

FILLER METAL CHEMICAL ANALYSIS %						SIZES	AMPERAGE
C	Mn	P	S	Si	Ni		
0.15	0.50	0.03	0.03	0.10	98.0	2.25 mm - 3/32"	70
						3.25 mm - 1/8"	110
						4.0 mm - 5/32"	140
						5.0 mm - 3/16"	160