NIK 100

PURE NICKEL ELECTRODE FOR FULLY MACHINABLE, CRACK-RESISTING WELDS ON ALL GRADES OF CAST IRON

DATA SHEET NO. **144**

SPECIFICATION	AWS A5.15	EN ISO 1071	JIS Z 3252
CLASSIFICATION	ENi-CI	E C Ni-CI	DFC Ni

PRODUCT DESCRIPTION

The design emphasis of the chemically basic flux assures the metallurgical integrity of the weld metal. The high graphite content of the flux is expelled from the molten metal, compensating for the compression welding stresses thus preventing weld metal cracking.

The core wire is pure nickel.

WELDING FEATURES OF THE ELECTRODE

The arc is stable both AC and DC, but is very soft, thus minimising dilution. Weld beads are smooth, bright and evenly rippled. The slag is fairly fluid but relatively quick freezing, thus allowing smooth blends when edges are involved.

The slag is readily controlable, thus making positional welding very easy, plus the slag is easily detachable.

APPLICATIONS AND MATERIALS TO BE WELDED

Successful welding of cast irons is dependant on low strength weld metal and controlled heat input welding procedures. Both characteristics are assured by the use of NIK 100. NIK 100 may be used for all standard grades of grey cast iron and malleable cast irons.

Typical applications include repairs to engine blocks and heads, gear housings, machine bases, as well as repairs to used castings. Is also used to rectify casting defects on new castings.

WELD METAL ANALYSIS COMPOSITION % BY Wt.

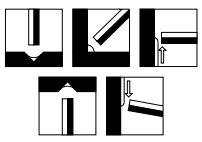
	C	Mn	Si	S	P	Fe	Ni	Cu	Others
Min.	-	-	-	-	-	-	85	-	-
Max.	2.0	2.5	4.0	0.03	-	8.0	-	2.5	1.0
Typical	1.0	0.1	0.2	0.001	0.003	0.5	Bal.	0.03	0.05

WELD METAL PROPERTIES (ALL WELD METAL)

PROPERTY	UNITS	MINIMUM	TYPICAL	OTHERS
Tensile strength	N/mm^2	-	275	
0.2% Proof stress	N/mm^2	-	-	
Elongation on 4d	%	-	8	HV 140 - 160
Reduction of Area (RA)	%	-	-	

WELDING AMPERAGE AC or DC

Ø x Length (mm)	2.6 x 300	3.2 x 350	4.0 x 350
Min.	60	90	100
Max.	100	130	140



OTHER DATA	Electrodes that have become damp should be re-dried at 110°C for 1 hour
RELATED PRODUCTS	Please contact our Technical Department for detail