CIN-2

A 55 NICKEL-45 IRON ALLOYED ELECTRODE FOR FULLY MACHINABLE CRACK-RESISTANT WELDS ON A WIDE RANGE OF CAST IRONS

DATA SHEET NO. **143**

SPECIFICATION	AWS A5.15	EN ISO 1071	JIS Z 3252
CLASSIFICATION	ENiFe-CI	EC NiFe-CI	DFC NiFe

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 55 Nickel - 45 Iron.

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

The NiFe weld metals produce higher strength welds than the pure nickel types and are thus the preferred choice for alloyed, nodular and spheroidal cast irons.

Typical grades being ASTM A602, A47, A338, A220.

Additional applications include welding of all grades of cast iron to mild carbon and low alloy steels.

WELD METAL ANALYSIS COMPOSITION % BY Wt.

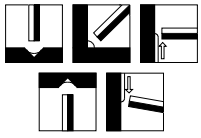
	C	Mn	Si	S	P	Ni	Cu	Al	Fe
Min.	-	-	-	-	-	45	-	-	
Max.	2.0	2.5	4.0	0.03	-	60	2.5	1.0	
Typical	1.1	0.4	0.5	0.01	0.01	50	0.01	0.01	Bal.

WELD METAL PROPERTIES (ALL WELD METAL)

PROPERTY	UNITS	MINIMUM	TYPICAL	OTHERS
Tensile strength	N/mm^2	-	500	
0.2% Proof stress	N/mm^2	-	230	
Elongation on 4d	%	-	12	HV 170 - 200
Reduction of Area (RA)	%	-	-	
Impact energy-not applicable	J	-	-	

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.