NCM-6

A CHEMICALLY BASIC FLUX COATED MMA ELECTRODE DEPOSITING A NICKEL BASED ALLOY HIGH IN BOTH CHROMIUM AND MOLYDENIUM

DATA SHEET NO. 92

SPECIFICATION	AWS A5.11	BS EN ISO 14172	JIS Z 3225
CLASSIFICATION	ENiCrMo-6	E Ni 6620	D9Ni-1

PRODUCT DESCRIPTION

The chemically basic flux is extruded onto a high purity nickel chromium core wire. The flux contains the remaining alloying elements together with alloys for deoxidation and grain refinement.

The blend of silicates used during electrode production ensure both coating strength and resistance to subsequent moisture absorption.

WELDING FEATURES OF THE ELECTRODE

The electrode is suitable for use on both AC and DC+ and welds with great arc stability and thus control of the molten weld pool. Slag detachability is good.

The weld beads are bright and evenly rippled with fillet welds slightly convex.

Strike and re-strike should be made with the established back step technique.

APPLICATIONS AND MATERIALS TO BE WELDED

As the weld metal has excellent cryogenic properties, both toughness and lateral expansion, it is ideal for welding 9% Nickel operating up to -196 ºC and conforming to ASTM A353, A533, UNS K81340 and K71340.
Also suitable for 5% nickel steels including ASTM A645 and A352 LC4 (cast).

WELD METAL ANALYSIS COMPOSITION % BY Wt.

	C	Mn	Si	S	P	Cr	Ni	Cu	Mo	Nb	W	Fe
MIN	-	2.0	-	-	-	12	55	-	5.0	0.5	1.0	-
MAX	0.1	4.0	1.0	0.02	0.03	17	-	0.5	9.0	2.0	2.0	10
TYPICAL	0.04	3.0	0.7	0.02	0.01	15	Bal	0.2	7.0	1.0	1.2	8.0

WELD METAL PROPERTIES (ALL WELD METAL)

PROPERTY	UNITS	MINIMUM	TYPICAL	OTHERS
Tensile strength	N/mm^2	620	750	
0.2% Proof stress	N/mm^2	-	480	LATERAL EXPANSION -196°C 0.8mm
Elongation on 4d	%	35	40	
Reduction of Area (RA)	%	-	40	
Impact energy -196 °C	J	-	65	

WELDING AMPERAGE AC or DC+

Ø (mm)	3.2	4.0	5.0
MIN	90	130	170
MAX	130	180	200

OTHER DATA	Electrodes that have become damp should be re-dried at 180 °C for 1 hour.
RELATED PRODUCTS	Please contact our Technical Department for detail.