


NCF	BASIC FLUX COATED ELECTRODE DEPOSITING A NICKEL BASED ALLOY WITH A HIGH CHROME CONTENT AND LOWER BUT SIGNIFICANT LEVELS OF OTHER SPECIAL ELEMENTS						DATA SHEET NO. 88					
	SPECIFICATION	AWS A5.11	BS EN ISO 14172	JIS Z 3224								
CLASSIFICATION	ENiCrFe-3	E Ni 6182	DNiCrFe-3									
PRODUCT DESCRIPTION	<p>The chemically basic flux is extruded onto a fully alloyed core wire with respect to nickel and chromium.</p> <p>The flux also contains alloys for deoxidation and grain refinement and the blend of silicates used during electrode production ensure both coating strength and resistance to subsequent moisture absorption.</p>											
WELDING FEATURES OF THE ELECTRODE	<p>The electrode will weld on AC but is used to best advantage on DC+. The arc is stable and forceful and should be used with short arc technique.</p> <p>The fluid slag lends itself to positional welding. The slag, under most circumstances is easily detachable.</p> <p>The weld appearance is bright and fillet welds are convex.</p>											
APPLICATIONS AND MATERIALS TO BE WELDED	<p>May be used for welding a wide range of nickel based alloys operating between -196 to about 480 °C, including INCONEL™ 600, INCONEL™ 601 and NIMONIC 75.</p> <p>The high manganese content of the alloys gives it a very high resistance to hot cracking and to dilution from nickel and iron based alloys, allowing many dissimilar welds to be made including carbon and stainless steels to each other or to nickel based alloys.</p>											
WELD METAL ANALYSIS COMPOSITION % BY Wt.		C	Mn	Si	S	P	Cr	Ni	Cu	Nb	Fe	Ti
	MIN	-	5.0	-	-	-	13	59	-	1.0	-	-
	MAX	0.1	9.5	1.0	0.015	0.03	17	-	0.5	2.5	10	1.0
	TYPICAL	0.08	7.0	0.6	0.01	0.02	16.5	65	0.1	2.0	8.0	0.4
WELD METAL PROPERTIES (ALL WELD METAL)	PROPERTY	UNITS	MINIMUM	TYPICAL	OTHERS							
	Tensile strength	N/mm ²	550	610								
	0.2% Proof stress	N/mm ²	-	430								
	Elongation on 4d	%	30	43	HV 190							
	Reduction of Area (RA)	%	-	-								
	Impact energy -196 °C	J	-	100								
WELDING AMPERE AC or DC+	Ø (mm)	2.6	3.2	4.0								
	MIN	50	80	120								
	MAX	90	130	170								
OTHER DATA	Electrodes that have become damp should be re-dried at 180 °C for 30 mins.											
RELATED PRODUCTS	Please contact our Technical Department for detail.											