


NC-400	A CHEMICALLY BASIC FLUX COATED MMA ELECTRODE FOR WELDING NICKEL BASED ALLOYS CONTAINING 25% - 35% COPPER			DATA SHEET NO. 85							
SPECIFICATION	AWS A5.11	BS EN ISO 14172	JIS Z 3224								
CLASSIFICATION	ENiCu-7	E Ni 4060	DNiCu-7								
PRODUCT DESCRIPTION	<p>The chemically basic flux is extruded onto a fully alloyed core wire with respect to nickel and copper.</p> <p>The flux also contains titanium to refine the weld metal and manganese to suppress hot cracking. The slag has a low viscosity but a fairly narrow solidification range.</p>										
WELDING FEATURES OF THE ELECTRODE	<p>The electrode is suitable for use on DC+ only.</p> <p>The slag fluidity and solidification range ensures excellent positional welding while the use of titanium ensures weld metal refinement and freedom from porosity.</p> <p>Metal recovery is some 100% with respect to the weight of the core wire.</p>										
APPLICATIONS AND MATERIALS TO BE WELDED	<p>For welding nickel, copper alloys, cast or wrought, including on site pipework.</p> <p>Typical materials are : ASTM - ASME UNS N04400, N04405, N05500. A4.94 M35-1 cast A494 M35 cast.</p> <p>Proprietary alloys include: Monel 400 - R405 - K500 (special metals)</p> <p>It may also be used to weld Ni-Cu alloys to nickel, cupro-nickel and these to stainless steels.</p>										
WELD METAL ANALYSIS COMPOSITION % BY Wt.		C	Mn	Si	S	P	Fe	Ti	Al	Ni	Cu
	MIN	-	-	-	-	-	-	-	-	62	
	MAX	0.15	4.0	1.5	0.015	0.02	2.5	1.0	0.75	69	
	TYPICAL	0.06	2.0	0.9	0.01	0.01	1.0	0.8	0.2	64	Bal.
WELD METAL PROPERTIES (ALL WELD METAL)	PROPERTY	UNITS	MINIMUM	TYPICAL	OTHERS						
	Tensile strength	N/mm ²	480	560	HV 160 – 180						
	0.2% Proof stress	N/mm ²	-	350							
	Elongation on 4d	%	30	40							
	Reduction of Area (RA)	%	-	60							
	Impact energy -30 °C	J	-	120							
WELDING AMPERAGE DC+	Ø (mm)	2.6	3.2	4.0							
	MIN	60	70	90							
	MAX	80	110	150							
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.										