


NCNb-25.35	A CHEMICALLY BASIC FLUX COATED ELECTRODE THAT DEPOSITS A NIOBIUM STABILISED WELD METAL CONTAINING A NOMINAL 25Cr-35Ni RESISTANT TO THERMAL FATIGUE UP TO 1100°C.				DATA SHEET NO. 104						
SPECIFICATION	NO SPECIFICATION EXISTS FOR THIS ELECTRODE,										
CLASSIFICATION	BUT IT MAY BE COMPOSITIONALLY CODED AS 25.35H.Nb.B										
PRODUCT DESCRIPTION	<p>Manufactured on a high purity Cr Ni wire, the chemically basic flux provides high resistance to microfissuring when welding thick sections and ensures low levels of non-metallic inclusions.</p> <p>The flux is extruded on to the core wire using a blend of silicates that ensures both coating strength and a coating resistant to subsequent moisture absorption.</p>										
WELDING FEATURES OF THE ELECTRODE	<p>Suitable for use on DC+ only, the arc is stable and directional but strike and re-strikes should be made with the back-step technique. The weld beads are bright with fillet welds having a convex profile. Slag detachability is good even in thick butt welds. Positional welding is best undertaken with 3.2mm and smaller diameters.</p> <p>Metal recovery is some 130% with respect to weight of core wire.</p>										
APPLICATIONS AND MATERIALS TO BE WELDED	<p>Designed for welding similarly alloyed castings covered by ASTM - ASME A297 HP40Cb.</p> <p>Proprietary alloys include: Paralloy H39W (Doncaster Paralloy) Lloyds T64 (LBA) Thermalloy 64 (Duralloy) Pyrotherm G25/35Nb and NbTZ (Pose Marre)</p> <p>For the above, the alloy provides good strength and creep resistance up to 1100°C and is resistant to sigma phase formation and thus embrittlement.</p>										
WELD METAL ANALYSIS COMPOSITION % BY Wt.		C	Mn	Si	S	P	Cr	Ni	Mo	Nb	Ti
MIN		0.35	0.5	0.2	-	-	23	32	-	0.8	0.05
MAX		0.50	2.0	1.0	0.03	0.04	27	36	0.5	1.5	0.20
TYPICAL		0.44	1.5	0.4	0.01	0.02	25	35	0.2	1.2	0.1
WELD METAL PROPERTIES (ALL WELD METAL)	PROPERTY	UNITS	MINIMUM	TYPICAL	OTHERS						
	Tensile strength	N/mm ²	600	740	HV 240						
	0.2% Proof stress	N/mm ²	-	560							
	Elongation on 4d	%	6	12							
	Reduction of Area (RA)	%	-	15							
Impact energy 0°C	J	-	-								
WELDING AMPERAGE AC or DC+	Ø (mm)	2.6	3.2	4.0	5.0						
	MIN	60	70	100	130						
	MAX	90	120	105	210						
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.										