


NSB-316H	FOR WELDING AUSTENITIC STAINLESSS STEELS CONTAINING A NOMINAL 19Cr-12Ni-2.5Mo					DATA SHEET NO. 73						
SPECIFICATION	AWS A5.4		BS EN 1600		JIS Z 3221							
CLASSIFICATION	E316H-16		E19 12 2 R		D316-16							
PRODUCT DESCRIPTION	<p>A metallurgically advanced rutile based flux formulated with balanced additions of chemically basic, amphoteric and acid minerals, together with small alloy additions to compensate for arc losses.</p> <p>The flux is concentrically extruded onto a fully alloyed core wire and bound by a blend of silicates that assures both coating strength and resistance to subsequent moisture absorption.</p>											
WELDING FEATURES OF THE ELECTRODE	<p>This unique flux formulation ensures excellent arc stability, ease of initial arc strike and re-strike minimal spatter on AC and virtually none on DC+. The resultant weld seams are smooth, evenly rippled and free from undercut while slag detachability is excellent. Metal recovery is some 103% with respect to core wire weight.</p>											
APPLICATIONS AND MATERIALS TO BE WELDED	<p>Applications for the electrode are to be found in the Chemical, Petro-Chemical and Cryogenic Processing and Storage Industries as well as the Food, Brewery and Pharmaceutical Industries using the following materials:</p> <p style="text-align: center;">ASTM 316/316H CF10M UNS 310 S51 316 S53 S316 C16</p> <p>NSB-316H is designed to weld 316, 316H Austenitic Stainless Steels operating at 500°C to 800°C under long-term creep conditions.</p>											
WELD METAL ANALYSIS COMPOSITION % BY Wt.		C	Mn	Si	S	P	Cr	Ni	Mo	Cu	Fe	FN
	MIN	0.04	0.5	-	-	-	17	11	2.0	-		3
	MAX	0.08	2.5	1.0	0.03	0.04	20	14	3.0	0.75		8
	TYPICAL	0.06	1.1	0.6	0.02	0.02	18	12	2.7	0.3	Bal.	5
WELD METAL PROPERTIES (ALL WELD METAL)	PROPERTY		UNITS		MINIMUM		TYPICAL		OTHERS			
	Tensile strength		N/mm ²		520		590		H.V. 210			
	0.2% Proof stress		N/mm ²		-		460					
	Elongation on 4d		%		30		35					
	Reduction of Area (RA)		%		-		34					
	Impact energy 20°C		J		-		70					
WELDING AMPERAGE AC or DC+	Ø (mm)	2.0	2.6	3.2	4.0	5.0						
	MIN	35	65	80	120	160						
	MAX	80	100	125	170	210						
OTHER DATA	Electrodes that have become damp should be re-dried at 150°C for 1 hour.											
RELATED PRODUCTS	Please contact our Technical Department for detail.											