


NSB-318	FOR WELDING AUSTENITIC STAINLESSS STEELS CONTAINING A NOMINAL 18Cr-12Ni-2.7Mo-Nb					DATA SHEET NO. 75																	
	SPECIFICATION	AWS A5.4		BS EN 1600		JIS Z 3221																	
CLASSIFICATION	E318-16		E19 12 3 Nb R		D318-16																		
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> <table border="0" style="width:100%; text-align:center;"> <tr> <td>ASTM/ASMC</td> <td>316Ti</td> <td>316Cb</td> <td>CF10MC</td> <td>318C17</td> <td></td> <td></td> <td></td> </tr> <tr> <td>UNS</td> <td>S31635</td> <td>S316640</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <p>NSB-318 is designed to weld Nb- or Ti-stabilised grades of Mo containing Austenitic Stainless Steels when good corrosion resistance is needed. Max service temperature is 400°C.</p>							ASTM/ASMC	316Ti	316Cb	CF10MC	318C17				UNS	S31635	S316640					
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WELD METAL ANALYSIS COMPOSITION % BY Wt.		C	Mn	Si	S	P	Cr	Ni	Mo	Cu	Nb	FN											
	MIN	-	0.5	-	-	-	17	11	2.0	-	6xC	6											
	MAX	0.08	2.5	1.0	0.03	0.03	20	14	3.0	0.75	1.0	13											
	TYPICAL	0.02	1.2	0.7	0.01	0.02	19	13.5	2.6	0.3	0.6	8											
WELD METAL PROPERTIES (ALL WELD METAL)		<u>PROPERTY</u>		<u>UNITS</u>	<u>MINIMUM</u>	<u>TYPICAL</u>	<u>OTHERS</u>																
		Tensile strength		N/mm ²	550	660	H.V. 215																
		0.2% Proof stress		N/mm ²	-	500																	
		Elongation on 4d		%	25	30																	
		Reduction of Area (RA)		%	-	50																	
		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.																						