


<b>NSB- 317L</b>	<b>FOR WELDING LOW CARBON AUSTENITIC STAINLESSS STEELS CONTAINING A NOMINAL 19Cr-13Ni-3.5Mo</b>						<b>DATA SHEET NO. 74</b>									
SPECIFICATION	AWS A5.4				JIS Z 3221											
CLASSIFICATION	E317L-16				D317L-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            317    317L    CG8M</p> <p>NSB-317L is mainly used to weld 317 and 317L Austenitic Stainless Steels as the higher Mo content ensures improved resistance to pitting corrosion in high chloride environments compared to lower Mo variants.</p>															
WELD METAL ANALYSIS COMPOSITION % BY Wt.		C	Mn	Si	S	P	Cr	Ni	Mo	Cu	Fe	FN				
MIN		-	0.5	-	-	-	18	12	3.0	-		8				
MAX		0.04	2.5	1.0	0.03	0.04	21	14	4.0	0.75		15				
TYPICAL		0.03	1.2	0.7	0.01	0.02	20	13	3.3	0.13	Bal.	10				
WELD METAL PROPERTIES (ALL WELD METAL)	PROPERTY	UNITS	MINIMUM	TYPICAL	OTHERS											
	Tensile strength	N/mm <sup>2</sup>	520	650												
	0.2% Proof stress	N/mm <sup>2</sup>	-	420												
	Elongation on 4d	%	30	36	H.V. 210											
	Reduction of Area (RA)	%	-	40												
	Impact energy 20°C	J	-	90												
WELDING AMPERAGE AC or DC+	Ø (mm)	2.0	2.6	3.2	4.0	5.0										
MIN		40	80	100	140	160										
MAX		60	100	130	160	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.															