


NSB-310	FOR WELDING FULLY AUSTENITIC STAINLESS STEELS CONTAINING A NOMINAL 25 Cr and 20Ni					DATA SHEET NO. 68					
	SPECIFICATION	AWS A5.4		BS EN 1600		JIS Z 3221					
CLASSIFICATION	E310-16		E 25 20 R		D310-16						
PRODUCT DESCRIPTION	<p>A unique rutile based flux formulated with very low levels of acid and amphoteric minerals combined 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>The electrode is used to best advantage on DC+ but is also stable on AC. Weld beads are smooth and slag detachability is good. Because weld metal silicon is low by design to reduce solidification cracking (a feature common to all ferrite free austenitic alloys), the weld profile is more u-convex than normal.</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/UNS 310/S31000 CK20 (cast) 310S/S31008 Proprietary materials - Immaculate S (Firth Vickers) 15 RE 10 (Sandvick)</p>										
WELD METAL ANALYSIS COMPOSITION % BY Wt.		C	Mn	Si	S	P	Cr	Ni	Mo	Cu	Fe
	MIN	0.08	1.0	-	-	-	25	20	-	-	
	MAX	0.20	2.5	0.75	0.03	0.03	28	22.5	0.75	0.75	
	TYPICAL	0.15	2.0	0.40	0.01	0.02	27	21	0.05	0.11	Bal.
ALL WELD METAL PROPERTIES	<u>PROPERTY</u>		<u>UNITS</u>		<u>MINIMUM</u>		<u>TYPICAL</u>		<u>OTHERS</u>		
	Tensile strength		N/mm ²		550		690		H.V. 200		
	0.2% Proof stress		N/mm ²		-		450				
	Elongation on 4d		%		30		42				
	Reduction of Area (RA)		%		-		52				
Impact energy 20°C		J		-		100					
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.										