




**MANUFACTURERS OF A DIVERSE RANGE OF  
ADVANCED WELDING CONSUMABLES**

**SECTION  
8**

WI-0304 DS102A NSB-310H Rev. 0, Date 01.05.2011

<b>NSB-310H</b>	<b>FOR WELDING OR REPAIRING HIGH-ALLOY HEAT AND CORROSION-RESISTANT STEEL CASTINGS WHICH OPERATING UP TO 1000°C</b>				<b>DATA SHEET NO.  102A</b>										
SPECIFICATION	AWS A5.4			BS EN 1600											
CLASSIFICATION	E310H-16			E 25 20 H R											
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. 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>The electrode is designed to weld HK40 operating at 1000°C as used in steam, chemical and petro-chemical plants. Also for components in the cement, ceramic and steel industries. Other materials to be welding include :</p> <p style="padding-left: 40px;">ASTM A351, A608 Grade HK40. A297 Grade HK. BS 3100 Grade 310 C40, 1504 Grade 310C40.</p> <p>Proprietary alloys include:</p> <p style="padding-left: 40px;">H20 Paralloy Thermalloy 47 (Duralloy) Lloyds T47 (LBA). HR6 (Cronite)</p>														
WELD METAL ANALYSIS COMPOSITION % BY Wt.		C	Mn	Si	S	P	Cr	Ni	Mo	Cu					
WELD METAL PROPERTIES (ALL WELD METAL)	PROPERTY	UNITS	MINIMUM	TYPICAL	OTHERS										
WELDING AMPERAGE DC+	Ø (mm)	2.6	3.2	4.0	5.0										
	MIN	60	75	100	130										
	MAX	90	120	150	200										
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.														