

HV-800	LIME RUTILE HARDFACING ELECTRODE DEPOSITING WELD METAL HIGH IN CHROME- CARBIDE PROVIDING EXCELLENT RESISTANCE TO ABRASION			DATA SHEET NO. 117			
SPECIFICATION	-						
CLASSIFICATION							
PRODUCT DESCRIPTION	<p>The design emphasis of the flux is designed to ensure a slag solidification range that allows the chrome carbide particles to be evenly distributed within the austenitic alloy matrix, so ensuring complete uniformity of hardness.</p> <p>The balanced lime rutile flux contains the appropriate alloying elements and is bound with a blend of silicates that ensures both coating strength and resistance to moisture absorption.</p>						
WELDING FEATURES OF THE ELECTRODE	<p>The electrode welds with a smooth stable arc and easily strikes and re-strikes. Weld appearance is bright, almost of polished appearance, smoothly contoured and slag detachability is excellent.</p> <p>The metal recovery is some 170% with respect to core wire weights, thus reducing welding time. The weld deposits are non-machinable.</p>						
APPLICATIONS AND MATERIALS TO BE WELDED	<p>Suitable for surfacing a wide range of steels including 13Mn types. Because thermal contractional stresses will cause stress relieving cross-cracking, build-ups should be limited to 3 layers, preferably two when restraint is high.</p> <p>The deposit has excellent resistance to abrasion against minerals, sand and sludges which leads to its extensive use in the earth moving, cement, dredging and steel industries.</p> <p>For build-ups on carbon and low alloy steels or 13Mn steel NSB-307 should be used as a buffer layer.</p>						
WELD METAL ANALYSIS COMPOSITION % BY Wt.		C	Mn	Si	Cr	Mo	Fe
	MIN	3.0	-	-	25	0.5	
	MAX	4.0	1.5	1.5	30	1.0	
	TYPICAL	3.8	1.2	1.0	28	0.8	Bal.
WELD METAL HARDNESS (ALL WELD METAL)	AS WELDED 150°C PRE-HEAT	HRC	HV	<p>Due to the complex nature of chrome carbides micro hardness will be 1500 HV. These give better abrasion resistance than martensitic alloys, eg : HV-600B, which have equivalent overall hardness, but lower micro-hardness.</p>			
	1 st Layer	45 – 50	450 – 520				
	2 nd Layer	54 – 58	580 – 660				
	3 rd Layer	56 – 60	620 – 700				
Actual hardness will be affected on base material composition, number of layers, heat input and welding conditions							
WELDING AMPERAGE AC or DC+	Ø (mm)	3.2	4.0	5.0			
	MIN	100	130	170			
	MAX	150	180	230			
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.						