


NS-300	LOW HYDROGEN MEDIUM ALLOYED HIGH EFFICIENCY HARDFACING ELECTRODE WITH EXCELLENT RESISTANCE TO IMPACT INDUCED COMPRESSIONAL STRESSES				DATA SHEET NO. 131					
SPECIFICATION	-									
CLASSIFICATION										
PRODUCT DESCRIPTION	<p>The design emphasis of the chemically basic flux is engineered to ensure that the weld metal hardness levels demanded by the specification are fully met without detracting from the toughness levels associated with this class of alloy.</p> <p>The basic flux containing the appropriate alloying elements and a balanced addition of iron powder is extruded onto a high purity ferritic core wire using a balance of silicates that ensures both coating strength and resistance to moisture absorption.</p>									
WELDING FEATURES OF THE ELECTRODE	<p>The electrode is suitable for both AC and DC and may be used in all positions except vertical down. Arc stability is good as is slag detachability. Weld seams are smooth, evenly rippled and slightly convex in shape.</p> <p>The metal recovery of the electrode is some 120% with respect to weight of the core wire.</p>									
APPLICATIONS AND MATERIALS TO BE WELDED	<p>Many die forming blocks in the drop forging industry are continuously subjected to impact induced compressional stresses combined with thermal shock from insertion of the hot blank and removal of the shaped product. HV 300 ensures for such applications freedom from die distortion due to its high strength level freedom from cracking due to its exceptional toughness and resistance to oxidation due to the balanced ratio of chrome - nickel and molybdenum.</p>									
WELD METAL ANALYSIS COMPOSITION % BY Wt.		C	Mn	Si	S	P	Cr	Ni	Mo	Fe
	MIN	0.06	0.8	-	-	-	1.0	2.8	0.9	
	MAX	0.12	1.2	0.5	0.03	0.03	1.4	3.3	1.2	
	TYPICAL	0.1	1.0	0.4	0.01	0.02	1.2	3.0	1.1	Bal.
WELD METAL HARDNESS (ALL WELD METAL)	AS WELDED (PREHEAT & INTERPASS)		Vickers (HV)	Rockwell (HRC)	<u>OTHER PROPERTIES</u> UTS 120N/mm ² Charpy V at -30°C : 40J					
	150°C		270 – 300	26 – 30						
	250°C		300 – 360	30 – 36						
	PWHT 590 – 600°C		300	30						
WELDING AMPERAGE AC or DC+	Ø (mm)	2.6	3.2	4.0	5.0					
	MIN	60	80	130	170					
	MAX	90	140	190	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.									