


HV-600	RUTILE - LOW ALLOY - HIGH EFFICIENCY HARDFACING ELECTRODE FOR BALANCED RESISTANCE TO ABRASION AND IMPACT LOADING				DATA SHEET NO. 115						
SPECIFICATION	AWS A5.13		DIN 8555		JIS Z 3251						
CLASSIFICATION	EFe3		E6-UM-60-GP		DF2B - 600 - R						
PRODUCT DESCRIPTION	The design emphasis of the alloyed weld metal ensures the desired hardness level to the specification is readily achieved as is the deposits maximum resistance to impact loading combined with medium resistance to abrasion. The flux contains the appropriate alloying elements plus iron powder addition and is extruded onto a ferritic wire with a balance of silicates that ensures both coating strength and resistance to moisture absorption.										
WELDING FEATURES OF THE ELECTRODE	The electrode is suitable for both AC and DC and is used to best advantage in the flat and HV positions. The arc is smooth and stable weld beads are evenly rippled, of bright appearance and the slag readily detachable. The weld deposit is highly crack resistant under normal circumstances, but on high carbon cast steels or restrained sections of mild steel, a pre-heat of 150 °C should be used.										
APPLICATIONS AND MATERIALS TO BE WELDED	<p>On high carbon steels HV-250B should be used as a buffer layer.</p> <p>The weld deposit has good resistance to abrasion, under normal circumstances is crack free, and will withstand a reasonable amount of impact loading.</p> <p>Used to particular advantage for: Bulldozer blades, crusher jaws, bucket lips and teeth involved in earth moving and mineral crushing. Where the main wear is abrasion, but with some impact resulting from rocks and compacted minerals.</p> <p>Under normal circumstances the weld metal is non-machinable.</p>										
WELD METAL ANALYSIS COMPOSITION % BY Wt.		C	Mn	Si	S	P	Cr	Mo	Nb	V	Fe
	MIN	0.5	0.5	-	-	-	4.0	-	-	-	
	MAX	0.8	1.5	1.0	0.03	0.03	7.0	1.0	0.4	-	
	TYPICAL	0.6	1.0	0.3	0.02	0.02	5.0	0.1	0.02	0.03	Bal.
WELD METAL HARDNESS (ALL WELD METAL)	AS WELDED 150°C PRE-HEAT		HRC		HV		Pre-heat and dilution may lower hardness on 1 st two layers but not on subsequent layers.				
	1 st Layer		50		520						
	2 nd Layer		55		600						
	3 rd Layer		58		690						
WELDING AMPERAGE AC or DC+	Ø (mm)	2.6		3.2		4.0		5.0			
	MIN	60		90		130		160			
	MAX	90		130		170		200			
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.										