

<b>HV-350B</b>	<b>LOW HYDROGEN - LOW ALLOY - HIGH EFFICIENCY HARDFACING ELECTRODE FOR BALANCED RESISTANCE TO ABRASION AND IMPACT LOADING</b>				<b>DATA SHEET NO. 110</b>					
SPECIFICATION	DIN 8555		JIS Z 3251							
CLASSIFICATION	E1-UM-350-GP		DF2A-350-B							
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> <p align="center"><b>UNCONTROLLED</b></p>									
APPLICATIONS AND MATERIALS TO BE WELDED	<p>The tough crack resistant weld deposit may be used as a buffer layer both on mild and high carbon steels prior to depositing harder alloys. Used in its own right, it provides an excellent combination of abrasion and impact resistance making it ideal for hardfacing gear wheels, rails, roller guides, slideways, track wheels, sprockets and similar.</p> <p>With carbide tools the welds are fully machinable.</p>									
WELD METAL ANALYSIS COMPOSITION % BY Wt.		C	Mn	Si	S	P	Cr	Mo	Fe	
	Min.	0.1	0.5	-	-	-	1.5	-		
	Max.	0.3	2.0	1.0	0.03	0.03	3.0	0.5		
	Typical	0.2	1.3	0.4	0.02	0.02	2.2	0.1	Bal.	
WELD METAL PROPERTIES (ALL WELD METAL)	AS WELDED (150°C PRE-HEAT & INTERPASS)		HRC		HV		QUENCHED 850°C	TEMPERED 650°C		
	1 <sup>st</sup> Layer		< 25		240 - 270					
	2 <sup>nd</sup> Layer		25 - 32		270 - 320		HV			
	3 <sup>rd</sup> Layer		30 - 40		300 - 390		350 - 530	290 - 310		
	Heat input, cooling rate, and dilution will affect hardness in the first two layers but no significant affect in next layers									
WELDING AMPERAGE AC or DC+	Ø x Length (mm)	3.2 x 350		4.0 x 400		5.0 x 400				
	Min.	90		140		190				
	Max.	130		180		240				
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.									