HV-250

RUTILE - LOW ALLOY - HIGH EFFICIENCY HARDFACING ELECTRODE WITH EXCELLENT RESISTANCE TO IMPACT LOADING COMBINED WITH MEDIUM ABRASION RESISTANCE

DATA SHEET NO. 109

SPECIFICATION	DIN 8555	JIS Z 3251
CLASSIFICATION	E1-UM-250-GP	DF2A-250-R

PRODUCT DESCRIPTION

The design emphasis of the alloyed weld metal ensures the desired hardness level of 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 HF 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 preheat of 150 ºC should be used.

APPLICATIONS AND MATERIALS TO BE WELDED

The main applications occur when intermetallic abrasion is involved, eg: to control wear in interconnecting steel components such as gear wheels, shafts, sprockets, couplings etc. The deposit is machinable thus enabling worn or broken sections to be rebuilt and then reshaped. Similarly the repaired component may be oil quenched to increase hardness or may be case hardened by conventional practices.

WELD METAL ANALYSIS COMPOSITION % BY Wt.

	C	Mn	Si	S	P	Cr	Fe
Min.	0.1	-	-	-	-	-	
Max.	0.3	1.0	1.0	0.03	0.03	1.5	
Typical	0.2	0.6	0.3	0.02	0.02	1.0	Bal.

WELD METAL HARDNESS (ALL WELD METAL)

AS WELDED (150 °C PRE-HEAT & INTERPASS)	HRC	HV	QUENCHED 850 °C	TEMPERING 650 °C
1st Layer	-	< 220		
2nd Layer	< 22	230 - 250	HV	
3rd Layer	20 - 30	240 - 300	300 - 350	< 215

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
Min.	90	140
Max.	140	180

OTHER DATA	Electrodes that have become damp should be re-dried at 150ºC for 1 hour
RELATED PRODUCTS	Please contact our Technical Department for detail.