HV-700

LIME RUTILE HARDFACING ELECTRODE DEPOSITING WELD METAL HIGH IN CHROME CARBIDE PROVIDING EXCELLENT RESISTANCE TO ABRASION

DATA SHEET NO. 116

SPECIFICATION / CLASSIFICATION

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PRODUCT DESCRIPTION

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 matric, so ensuring complete uniformity of hardness.

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.

WELDING FEATURES OF THE ELECTRODE

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.

The metal recovery is some 170% with respect to core wire weights, thus reducing welding time. The weld deposits are non-machinable.

APPLICATIONS AND MATERIALS TO BE WELDED

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.

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.

For build-ups on carbon and low alloy steels or 13Mn steel NSB-307,should be used as a buffer layer.

WELD METAL ANALYSIS COMPOSITION % BY Wt.

	C	Mn	Si	Cr	Mo	Fe
MIN	3.0	-	-	-	0.5	
MAX	4.0	1.5	1.5	25	1.0	
TYPICAL	3.5	1.2	1.0	24	0.8	Bal.

WELD METAL HARDNESS (ALL WELD METAL)

AS WELDED 150^{0}C PRE-HEAT	HRC	HV
1st Layer	45 – 50	450 – 500
2nd Layer	54 – 58	600 – 660
3rd Layer	56 – 60	620 – 700

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.

Actual hardness will be affected on base material composition, number of layers, heat input and welding conditions

WELDING AMPERAGE AC or DC+

Ø (mm)	2.6	3.2	4.0	5.0
MIN	70	110	150	200
MAX	110	150	200	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.