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| HV-950 | BASIC HARDFACING ELECTRODE DEPOSITING WELD METAL HIGH IN CHROME CARBIDE PROVIDING EXCELLENT RESISTANCE TO ABRASION | | | DATA SHEET NO. 120 | | | |
| 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 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.</p> <p>The metal recovery is some 170% with respect to core wire weights, thus reducing welding time. The weld deposits are non-machinable.</p> | | | | | | |
| APPLICATIONS AND MATERIALS TO BE WELDED | <p>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.</p> <p>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.</p> <p>For build-ups on carbon and low alloy steels or 13Mn steel, NSB-307 should be used as a buffer layer.</p> | | | | | | |
| WELD METAL ANALYSIS COMPOSITION % BY Wt. | | C | Mn | Si | Cr | Mo | Fe |
| | MIN | 4.0 | - | | 45 | - | |
| | MAX | 5.0 | 1.5 | 1.0 | - | 1.0 | |
| | TYPICAL | 4.0 | 0.6 | 1.8 | 50 | 0.6 | Bal. |
| WELD METAL HARDNESS (ALL WELD METAL) | AS WELDED 300°C PRE-HEAT | HRC | | HV | | | |
| | 1 st Layer | 52 - 58 | | 550 - 660 | | | |
| | 2 nd Layer | 54 - 60 | | 580 - 700 | | | |
| | 3 rd Layer | 56 - 62 | | 620 - 740 | | | |
| | Actual hardness will be affected on base material composition, number of layers, heat input and welding conditions | | | | | | |
| WELDING AMPERAGE AC or DC+ | Ø (mm) | 3.2 | | 4.0 | | 5.0 | |
| | MIN | 150 | | 190 | | 230 | |
| | MAX | 180 | | 250 | | 280 | |
| 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. | | | | | | |

