



HIGH RESISTANCE ALLOY Welding Guidelines

Characteristics

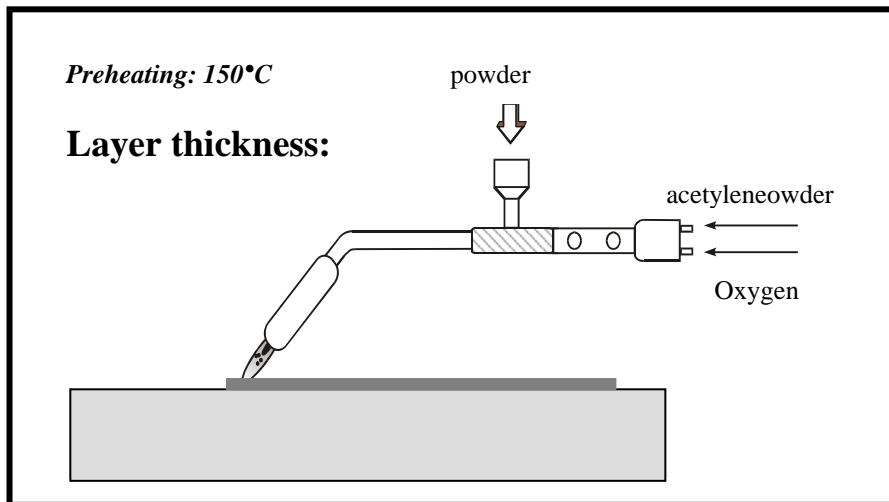
DURMAT-B is a nickel cored flexible rod coated with both fused tungsten carbide (FTC) and CrBSi developed for oxyacetylene welding. The deposited alloy consists of approximately 65 % FTC and 35 % NiCrBSi matrix with a deposit hardness of 45 HRc. The overlay is highly resistant to acids, bases, lyes and other corrosive media and excessive wear conditions. The rod has a low melting range of between 950 - 1.050°C (1.742-1.922°F) and characteristically it wets easily and flows extremely well producing a smooth, clean welded surface.

Application

Hardfacing of ferritic and austenitic steels (steel castings), overlaying mixer blades, screws & conveyors in Chemical and dye industry, Food industry. Specially recommended for stabilizer blades in the petroleum industry.

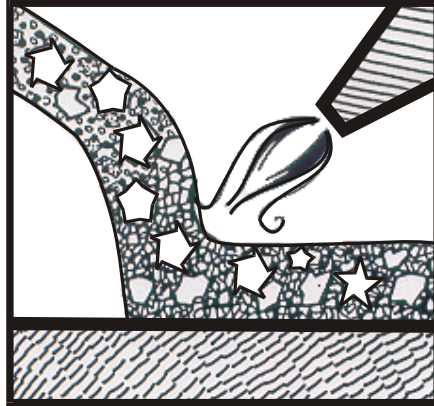
Preparation and preheating

- Every surface to be hardfaced with DURMAT-B must be clean and free of oxidation, dirt or other surface contamination. In some instances, a slight grinding operation might be necessary. All edges must be cut by grinding.
- To increase the wettability and to avoid any oxidation during the hardfacing with DURMAT-B, apply a buffer layer of Ni-Cr-B-Si powder of about 0.05mm thickness on the surface.

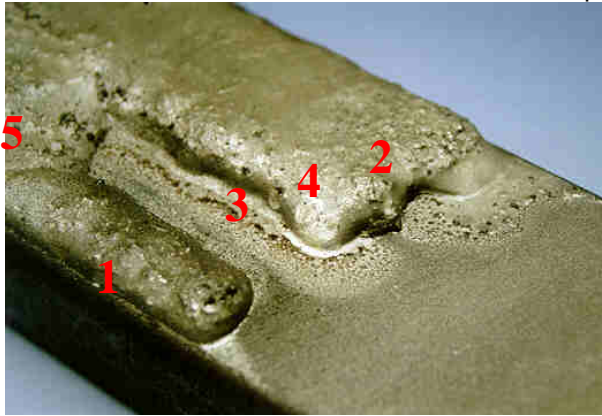


Depositing

- Preheat the part to about 300°C-350°C.
- Heat a small area to allow the buffer layer to melt, and then apply DURMAT-B, and when it flows, it will carry with it the tungsten carbide particles. The torch flame must form an angle of about 45°.



- At first all edges applications must be done first, then an additional centre pass may be added.



Remember

- The flame must be directed on to DURMAT-B.
- The wire must be completely melted by the torch.
- The melting of the wire will transfer the proper bonding temperature to adhere permanently to the base material.

DISCLAIMER

Our products & any recommended practices should be tested by the user under actual service conditions to determine their suitability for any particular purpose. The results obtained using this product / information are affected by variable such as welding procedure, base material composition, operating temperature, weldmet design, method of fabrication and service requirements which are beyond our control. It is the sole responsibility of the user to determine the serviceability of a structure using this product and the information contained in this data sheet.

Please observe all appropriate safety regulations in force. The technical information's given in this data sheet reflects the present state of knowledge. They do not form part of any sales contract as guaranteed properties of the delivered materials. Our delivery and sales conditions apply to all contracts included. Rev.: 2-03/01

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