Eutalloy® DiaMax 10999

Atomised Metal Powder for anti-wear coatings

Description:

Xuper Diamax 10999 is a nickel-based powder alloy manufactured especially for deposition with the SuperJet Eutalloy Torch. Xuper Diamax 10999 is the ultimate in weld protective coatings for applications where abrasion is the primary wear problem.

Deposits are saturated microcrystalline tungsten carbides in a reinforced matrix of unusually high strength. This combination results in a coating of unsurpassed resistance to abrasion-especially where fin particles predominate.

Superior Abrasion Resistance:

The homogenous dispersion of the dissolved tungsten carbides in the deposit of Xuper Diamax 10999 has proven to be more than twice as effective as any comparable coating material ever offered for abrasion resistant service.

Outstanding Frictional wear Resistance:

Eutalloy Xuper Diamax 10999 is unique in its ability to take a very high polish. Unlike conventional tungsten carbide type alloys, the deposits of Xuper Diamax 10999 can be polished to an extremely fine micron finish with a single pass of a grinder. The high polish which can be achieved is unmarred by large, un-dissolved surface carbides. The resulting mirror like surface produces an extremely low co-efficient of friction, reducing wear in metal to metal applications.

Technical Data:

Application temperature (°C):	1040
Matrix-Hardness (RC):	57 - 62
Diamax (µHV):	1900
Service conditions:	
Abrasion Resistance:	Excellent
Corrosion Resistance:	Very Good
Heat Scaling:	Very Good
Type of application:	
Thin Overlay:	Recommended

Base metals:

Cast Iron, steel, stainless steels, nickel & nickel alloys

Properties of deposit:

Hardness:	Super hard Diamax particles
Machinability:	Not machinable
Number of Passes:	Single
Weldability:	Excellent
Coverage:	1100 sq. cm x 1mm thick per Kg

Applications:

Mixer Blades, Post Hole Augers, Muller Blades, Choppers, Chutes, De-barker Chains, Liners, Plough shares, Furrowing Shovels, Cultivator Blades, Billet Tongs, Skid Cleats, Grapple Arms, Ladder Rungs, Revolving Platforms, Conveyor Cleats, Grippers, Guides, Lift Devices, Feed Devices, Clamping Devices.

Procedure for use:

Preparation:

Any oxides, dirt, grease or other contamination should be removed carefully before application. No preheating is required for thin metal parts or for coating edges. Large parts, and especially parts of very thick section, should be heated to about 300°C (blue hot).

Coating procedure:

Adjust the torch flame Eutalloy to neutral for coating.

For maximum assurance against oxidation of the base metal we recommend an initial thin coating (0.2-0.3 mm) sprayed onto the base metal and subsequently fused. The alloy is fused when it acquires a glazed appearance.

Distance between the flame cone tip and the molten pool: approx. 6-10 mm.

After spraying allow the part to cool slowly, avoiding draughts. If-possible place it in vermiculite or dry sand.

Finishing:

Procedure for grinding:* Use a green or black silicon carbide wheel-H-K hardness, 24-36. Grit for rough work and 60 and finer for finishing.

*Note: Grinding will reduce the protruding Diamax particles to the level of the matrix thus reducing the gripping and abrading action of the as-deposited alloy.

Packaging:

DiaMax 10999 can be obtained in both a 500-gram module and a 5kg Mega Pack.

DIGITALWELD

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