



## **BOND-COAT 50000**

Bond coat alloy powder for the cold spray process

### **Description:**

Proxon 50000 Bond coat produces a continuous network of tiny micro-welds that bond securely to the substrate and provide a rough, strong surface that is ideal for accepting RotoTec or Meta Ceram final coat powder alloys.

The powder particles, when introduced into the flame, undergo a vigorous chemical reaction which generates the additional energy that enhances the bonding process. Since this high energy is mostly confined to the particles themselves, only the necessary amount of heat is transmitted to the work piece, which remains relatively cool without risk of distortion or structural change.

Increased fusion reaction gives stronger metallurgical bonds.

Part temperature during spraying should never exceed 200°C for maximum bond strength.

Excellent deposit efficiency.

Thermal co-efficient of expansion close to that of steel.

### **Procedure for use:**

#### **Equipment:**

RotoTec 80, TeroDyn 2000 or CastoDyn DS 8000 torches.

#### **Cleaning:**

To obtain a perfect coating, the surface must be clean and free from grease.

#### **Preparatory machining:**

The worn area on which the coating will be deposited must be machined down until all the irregularities caused by wear have been eliminated. If the base metal is a hardened or surface treated metal, a carborundum grinder without lubrication should be used for machining. A rough surface is thus obtained on which the coating can then be deposited.

#### **Obtaining the bonding surface:**

It is recommended to preheat at 50°C-150°C before preparation.

Threading by means of cutting tool. The thread is half as deep as the pitch (example: pitch 0,7 mm; depth: 0,35 mm).

Grit blasting or grinding is an alternative surface treatment.

The areas which are not to be coated should be protected with R 104 solution.

### **Coating:**

Spray the bonding layer of alloy 50000. This first deposit should be approximately 0,1 mm thick, obtained in a single pass. Next, the alloy is deposited.

### **Applications:**

Initial bond coat for RotoTec and MetaCeram wear resistant powders.

Used to restore and protect shafts, rolls, journals, armatures, bearing surfaces, packing glands and seal areas

### **Base metals:**

Recommended for all steels (including stainless), cast iron, aluminium and aluminium alloys, nickel and nickel alloys, bronzes but not pure copper.

### **Packaging:**

Weight: 1.5 kg.

# **DIGITALWELD**

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