

ProXon 21023

An Easy-To-Machine, One-Step, Iron-Nickel- Aluminum-Molybdenum Powder

ProXon 21023 is an iron - nickel - aluminum - molybdenum composite powder designed for use with both Plasma spray and Combustion spray processes.

Coatings of 21023 exhibit excellent self-bonding properties and are suitable for use as a one-step product. Each lot of powder is subjected to extensive quality checks to insure a consistent particle size distribution and chemical composition. Coatings of 21023 are recommended to satisfy a number of broad requirements:

Machinability - Exhibits better machinability and less tool wear than similar coatings.

Oxidation Resistance - Coatings are resistant to oxidizing atmospheres upto a maximum temperature of 1500°F.

Bond Coating - May be used as a bond coat for nickel - chromes, carbides or stainless steels.

Product Details

- Outstanding machinability
- Excellent oxidation resistance
- High quality coatings with minimum operator technique dependence
- May be used for bond coat for nickel-chromes, carbides or stainless steels

APPLICATIONS

Thickness Limit: >0.125 inch

- Salvage and build-up of carbon steel and stainless steel parts
- Exhaust mufflers and heat treating fixtures
- Press fits and bearing seats to resist fretting wear

PROCEDURE FOR USE:

Preparation:

Clean and preheat the spray areas to 50 – 150°C. Remove damaged material and round off edges.

Spraying:

Roughing can be done at 0.004 inch per revolution crossfeed with infeed of 0.010 to 0.030 inch.

Apply the powder in the preheated state to achieve the desired coating thickness. Maintain the spray layer temperature between 50°C and 200°C. Do not exceed a coating thickness of 2 mm. Cooling: Allow the coating to cool in still air.

Good machined finishes can be obtained using carbide tools with low turning speeds in the range of 50 to 80 surface feet per minute.

Finishing can be done at less than 0.004 inch per revolution crossfeed with infeed of less than 0.005 inch (turning speed can be increased somewhat for finishing). Coolants and applications involving corrosion should be avoided.

Note: please refer the parameters given in operation manual.

TECHNICAL DATA

Typical hardness: 87 HRB

Bond Strength : 6000 psi

Max. Service Temperature: 1500°F (816°C)