Atomized Nickel-Chromium-Iron Alloy Powder

Eutectic[®] 19985



- Extremely strong under uniform compressive loads
- Designed to produce friction and corrosion resistant coatings
- Precise particle sizing ensures coating consistency
- Used for the reclamation of steel and alloy parts



DESCRIPTION:

Eutectic 19985 is an atomized nickel, chromium, iron alloy powder designed to produce friction resistant coatings with conventional combustion thermal spray processes. This corrosion resistant, machinable nickel-base alloy coating is used in the reclamation of steel and alloy parts. Finish by machining with carbide tools. Each lot of powder is subjected to extensive quality checks to insure a consistent particle size distribution, chemical composition and reliable coating performance. Coatings have high strength under uniform compressive loads. A bond coat such as Eutectic 50000 is required.

TECHNICAL DATA:

Coating Properties:

Typical macro-hardness: Rockwell B Scale, 82-84 Typical porosity: 6% Max. service temperature: 1,200°F (649°C) Coating density: 8.4 g/cc

Powder Properties:

Bulk density: 3.3 g/cc Powder coverage: 0.046 lbs/ft² @ 0.001" Hall flow rate: 22 seconds

TYPICAL APPLICATIONS:

- Motor shafts
- Chemical pump sleeves
- Journals
- Reclaim nickel-alloy parts

RECOMMENDED COATING & SPRAY PARAMETERS:

TD 2000	
Nozzle	RL 200
RPA-3	30 psi air pressure
Module Adaptor	Yellow/Red
Oxygen	50 psi / 35 flow (FM-1 flowmeter)
Acetylene	12 psi / 75 flow (FM-1 flowmeter)
T-Valve Setting	20-22 clicks
Coating Rate	20.0 lbs/hr
Deposit Efficiency	90%
Spray Distance	7-8 inches

PROCEDURE FOR USE:

Machine using conventional carbide tooling. Use flood coolant where possible.



Photomicrograph of Eutectic 19985. Oxides promote resistance to frictional wear. Semi-melted particles promote machinability. Interconnected porosity provides a reservoir for oil in lubricated applications and allows good penetration of sealer when used in corrosive environments.

YOUR RESOURCE FOR PROTECTION, REPAIR AND JOINING SOLUTIONS



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