



Patented, Nickel-Base Powder for
Anti-Corrosion and Anti-Wear Coatings

Eutectic®

53606



- Outstanding corrosion resistance, even at high temperatures
- Designed for the spray and fuse process
- High compressive strength
- Good abrasion resistance
- Excellent metal-on-metal wear resistance

Eutectic® 53606

Eutectic 53606 is a self-fluxing, Nickel based, highly alloyed powder for the spray and fuse process. 53606 is a unique product designed to give excellent corrosion and wear resistance in a variety of corrosive environments, both reducing and oxidizing. 53606 has similar properties in high temperature environments. Particle distribution is designed for use with TeroDyn® 2000, TeroDyn® 3000 and CastoDyn® DS 8000 equipment.

PROCEDURE FOR USE

Cleaning: All areas to be coated must be free of dirt, oxides, oils, grease, etc. In order to insure bonding between the coating and substrate. Grit-blasting or rough machining may be used to prepare parts. Use industrial solvents for degreasing surface.

Preheating: In general preheating between 200-550°F is required. Care should be taken in preheating stainless steel and steels containing tungsten, molybdenum, aluminum or titanium as these materials will tend to form oxides on the surface, which could impair the quality of the bonding of the layer.

Fusion: Eutalloy is a spray and fuse process. Alternate spray and fuse process for each layer until deposit depth is achieved. Begin heating approximately 1 inch from the edge of the part and progress outwards. Begin again at starting point, and progress in the opposite direction.

Finish machining: The final, fused coating is a smooth, fine finish. However, if a specific surface finish or dimension is required, the deposit can be machined.

TECHNICAL DATA

Chemistry	Deposit density (g/cm ³)	Thermal expansion coefficient	Typical Deposit Hardness (HV30)
NiCrMoFeCuBSi	8.1	12.2 x 10 ⁻⁶	Minimum 550 Nominal 620

RECOMMENDED COATING & SPRAY PARAMETERS

TD 2000

Nozzle: RL 200
RotoJet: RPA 3 @ 20 psi air
Module Adaptor: Yellow/Red
Oxygen: 50 psi / 35 flow (FM-1 flowmeter)
Acetylene: 12 psi / 75 flow (FM-1 flowmeter)
T-Valve Setting: 14-16 clicks
Coating Rate: 16.0 lb/hr
Spray Distance: 7 to 9 inches

TD 3000

Nozzle: RL 200W
RotoJet: RPA 3 @ 20 psi air
Oxygen: 50 psi / 32 flow (3310 flowmeter)
Acetylene: 12 psi / 48 flow (3310 flowmeter)
Carrier Gas: (Ar or N₂) @55 psi / 37 flow
Terometer: 150 (Adjust to achieve spray rate)
Coating Rate: 15 lb/hr
Spray Distance: 8 to 10 inches
Deposit Effic.: 85%

CDS 8000

Flame setting: N
Container Setting: 4
Air/Torch: 0-15 psi
Air/Extension: 15 psi
Spray Distance: 8 inches
Vc Rotation: 65 sfpm
Advance in Rev.: 0.1
Module: SSM 20

TYPICAL APPLICATIONS

Protective coating for components in environments of extreme abrasion and corrosion (both oxidizing and reducing) in waste incineration, pulp and paper, and chemical industries. Some examples are, boiler tubes, extruder screws, shafts, sleeves and mixer blades.

Observe normal spraying practices, respiratory protection and proper air flow pattern advised. For general spray practices, see AWS Publications AWS C2. 1-73, "Recommended Safe Practices for Thermal Spraying and AWS T5S-85, "Thermal Spraying, Practice, Theory and Application." Thermal spraying is a completely safe process when performed in accordance with proper safety measures. Become familiar with local safety regulations before starting spray operations. DO NOT operate your spraying equipment or use the spray material supplied, before you have thoroughly read the equipment instruction manual. Refer to the Eutectic website for Material Safety Data Sheet (MSDS) information. DISREGARDING THESE INSTRUCTIONS MAY BE HAZARDOUS TO YOUR HEALTH.



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