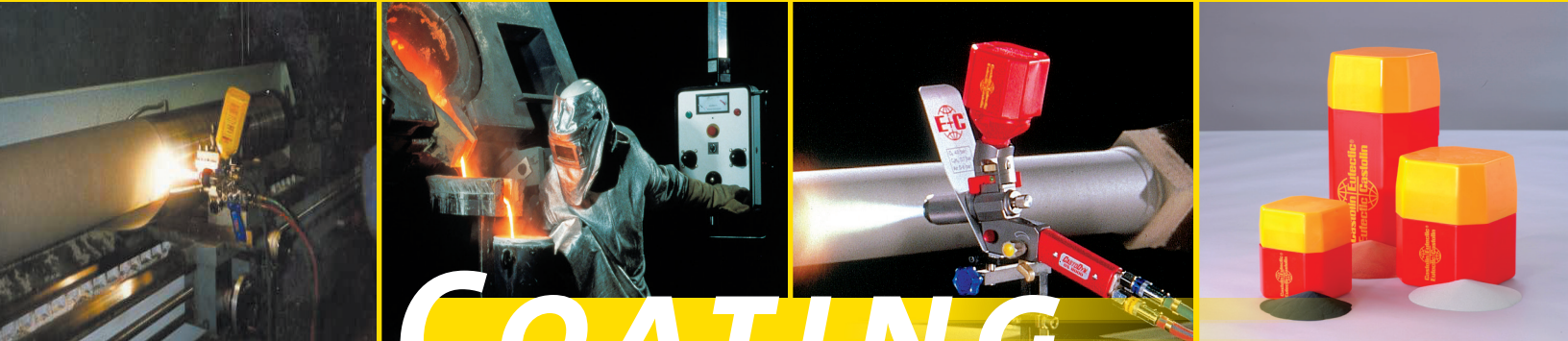


Gas Atomized Aluminum - Bronze Alloy Powder Used in
Both Plasma Spray and Combustion Spray Processes

Eutectic® 19850



COATING

- High quality machinable coatings for soft bearing applications
- Repeatable, high integrity coatings with minimum operator technique required
- May be used on steel and copper alloy parts to restore dimensions
- Excellent corrosion resistance in caustic solutions



DESCRIPTION:

Eutectic 19850 is a gas atomized aluminum bronze alloy powder designed to produce homogenous coatings with both Plasma spray and Combustion spray processes. 19850 meets the requirements of MIL-STD 1687. 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 exceptional cohesive strength that permits thick coatings to be applied.

Coatings of 19850 are recommended to satisfy a number of broad application requirements:

Machinability – High quality machinable coatings for soft bearing applications. Coatings applied to properly grit blasted parts can be machined to a featheredge without chipping.

Quality – High integrity coatings can be produced repeatedly with minimum operator technique dependence.

Versatility – Can be used on steel and copper alloy parts to restore dimensions, provide self-lubricating surface, and offers excellent corrosion resistance in caustic solutions.

Efficiency – Deposit efficiencies of 85 to 90% at 20 lbs/hr are normal when using the TeroDyn® System 2000 combustion spray torch.

RECOMMENDED COATING AND SPRAY PARAMETERS:

TD 3000	
Nozzle	RL 210W
RPA 3 RotoJet	10 psi on Bond Pass; 30 psi on Build-Up
Oxygen	50 psi / 38 flow (3310 Flowmeter)
Acetylene	12 psi / 62 flow (3310 Flowmeter)
Carrier Gas (Ar or N2)	55 psi / 37 flow
Coating Rate	5 lb/hr Bond Pass; 15 lb/hr Build-Up
Air Vibrator	RPA-3 @ 30 psi
Terometer	Adjust to achieve spray rate
Spray Distance	8-11 inch
Deposit Efficiency	90%

TECHNICAL DATA:

Powder Properties:

Hall Flow Rate:	15 seconds
Bulk Density:	4.3 g/cc
Powder Coverage:	0.037 lbs/ft ² @ 0.001 inch thickness

Coating Properties:

Typical Hardness:	Rockwell B Scale 70
Max. Service Temperature:	700°F (371°C)
Bond Strength (ASTM C633):	3000 psi on LCS
Porosity:	Less than 5%
Typical Surface Roughness:	As sprayed 530 µin AA Finished >15 µin AA

FINISHING PROCEDURE:

Recommended Method: Single Point Turning
Cutting Tool: Kennametal Type K7B or equivalent
Work Speed: Up to 200 SFPM
Traverse Speed
Roughing: Up to 0.007 inch per revolution
Finishing: 0.002 inch per revolution
In-Feed
Roughing: Up to 0.030 inch
Finishing: <0.003 inch
Coolant: None*

* For immersion service coating should be sealed with SealTec LT or Rotoguard Solution. Sealing should be done prior to machining. A second coat of sealer may be applied after machining if desired. Machining should be done without coolant unless coating is sealed.

TYPICAL APPLICATIONS:

- Reclaiming copper-base parts
- Diesel engine cooler element parts
- Transmission gear shafts and piston guides
- Shifter forks
- Worn bearing fits

TD 2000	
Nozzle	RL 200
RotoJet	RSF-1 @ 20 psi
Module Adaptor	Aqua
Oxygen	50 psi / 35 flow (FM-1 Flowmeter)
Acetylene	12 psi / 75 flow (FM-1 Flowmeter)
T-Valve Setting	14-18
Coating Rate	20 lb/hr
Spray Distance	7-8 inches
Deposit Efficiency	90%

YOUR RESOURCE FOR PROTECTION, REPAIR AND JOINING SOLUTIONS



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