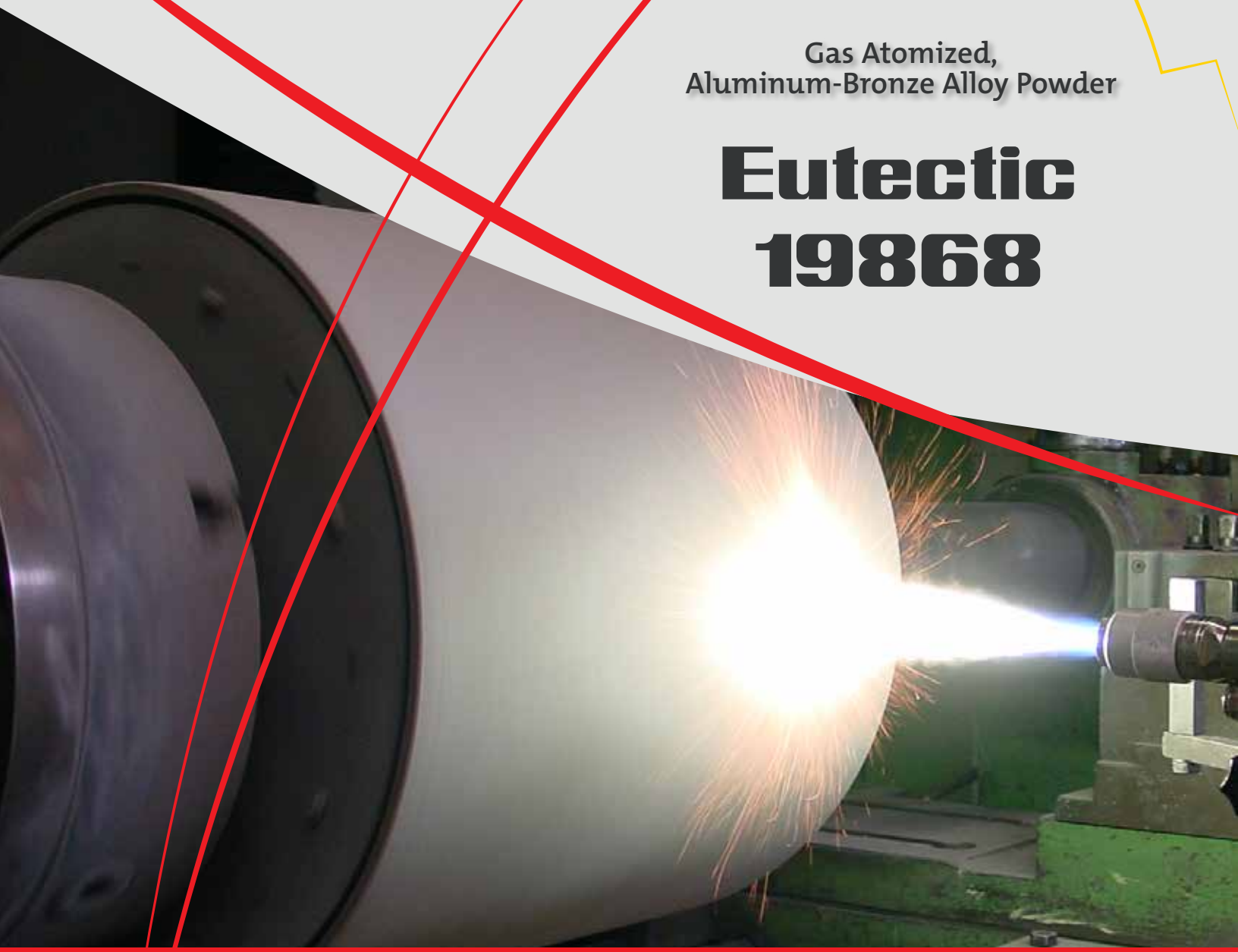
Castolin Eutectic®
Eutectic Castolin

Gas Atomized,
Aluminum-Bronze Alloy Powder

Eutectic 19868



- High quality, machinable coatings
- Repeatable coatings with minimal operator technique
- May be used on steel and copper parts to restore dimensions, provide self-lubricating surfaces
- Offers excellent corrosion resistance in caustic solutions

Eutectic 19868

Eutectic 19868 is a gas atomized modified aluminum bronze alloy powder designed to produce homogeneous coatings with both Plasma spray and Combustion spray processes. Modification by the addition of nickel to the alloy enhances bearing properties, raises coating hardness, and improves resistance to many types of wear. 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 19868 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.*

**Contact Eutectic Technical Services for further information concerning corrosion applications.*

TECHNICAL DATA

Typical Values	
Typical Macrohardness:	84 HRB
Max. Service Temperature:	700°F (378°C)
Porosity:	Less than <5%
Bond Strength (ASTM C633) applied over bond coat of UltraBond 50000:	>3000 psi
Typical Surface Roughness:	As-Sprayed: 600 µin AA Finished: 15 µin AA
Nominal Particle Size:	-150 micron + 45 micron
Hall Flow Rate:	15 seconds
Bulk Density:	4.3 g/cc
Powder Coverage:	0.047 lb/ft² @ 0.001"

PROCEDURE FOR USE:

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.*

Coating & Spray Parameters

TD 2000

Nozzle:	RL 200
Module Adaptor:	Yellow/Red
Oxygen:	50 psi / 35 flow (FM-1 flowmeter)
Acetylene:	12 psi / 48 flow (FM-1 flowmeter)
T-Valve Setting:	14-18 clicks
Coating Rate:	20 lb/hr
Deposit Efficiency:	90%
Spray Distance:	7 to 8 inches

Parameters for Non-Plasma Transferred Arc are available through Eutectic Technical Services.

TYPICAL APPLICATIONS

- Bearing surfaces
- Piston guides
- Drive shafts
- Pump shafts

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 TSS-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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