



An Iron-Nickel-Aluminum Cored Wire  
Made Exclusively for the  
Twin Wire Arc Spray Process

# **EuTronic<sup>®</sup> Arc 563 Wire**



- Good machineability using carbide tooling
- Self-bonding to most metal surfaces, including copper-base alloys
- Good resistance to a broad range of corrosive environments
- Widely used for machine element repair applications

# EuTronic® Arc 563AS

EuTronic Arc 563AS is an iron-nickel-aluminum cored wire designed specifically for the Twin Wire Arc Spray process. The coatings produced are self-bonding to most metal surfaces including some copper-base alloys.

Eutronic Arc 563 coatings will exhibit exceptionally good machinability using conventional carbide tooling. Finer finishes are achievable by grinding, using aluminum oxide or silicon carbide wheels.

Coatings of EAS 563 will exhibit good resistance to a broad range of moderately corrosive environments. Eutronic Arc 563 coatings are suitable for a wide range of machine element repair applications including those with exposure to moderately high temperatures.

## TECHNICAL DATA

Typical Values	
Typical Macrohardness:	90 HRB
Typical Microhardness:	200 Vickers
Bond Strength:	8,000 psi
Spray Rate:	8.0-8.5 lb/hr/100 amps
Max. Service Temperature:	1200°F (649°C)
Porosity:	4% typical
Impact/Bend Resistance:	Good
Shrinkage:	Low
Surface Roughness, As-Sprayed:	300 -700 AA
Surface Roughness, As-Machined:	32 AA

Melting Point: 1250°F (677°C)  
(aluminum component)

## PROCEDURE FOR USE:

Surfaces should be clean, white metal, with no oxides (rust), dirt, grease, or oil in the coating area.

*Note: It is best not to handle parts after cleaning.*

The recommended method of surface preparation is to grit blast with 24 mesh aluminum oxide.

Please contact your Eutectic Surface Coatings Specialist for more information.

### Spray Parameters:

Diameter: 1.6 mm  
Air Pressure: \*50 – 60 psi  
Voltage: \*30-32  
Amperage: \*100-200  
Standoff: \*3-5 in.

*\*Parameters are typical and may vary depending on the equipment used. Contact your equipment manufacturer for optimum spray parameters.*

## TYPICAL APPLICATIONS

- Bond Coating
- Diesel Engine Firedecks
- Rebuild Worn Bearing Areas
- Pump Shafts and Housings
- Air Seals

To ensure a safe work environment observe normal welding practices, provide appropriate eye, hearing, skin and respiratory protection and pay attention to air flow patterns. 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 web site for Material Safety Data Sheet (MSDS) information. . DISREGARDING THESE INSTRUCTIONS MAY BE HAZARDOUS TO YOUR HEALTH.



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