



An Aluminum - Silicon Wire
Made Exclusively for the
Twin Wire Arc Spray Process

EuTronic[®] Arc 528 Wire



- Harder and denser than aluminum coatings
- Well suited for repair/rebuild of aluminum and magnesium parts
- Excellent for reshaping of aluminum castings
- Machined finish of less than 50 micro-inches AA may be achieved with high speed or carbide tooling

EuTronic® Arc 528AS

EuTronic Arc 528 is an aluminum-silicon alloy designed specifically for the Twin Wire Arc process. The coatings produced are slightly less resistant to corrosion than pure aluminum coatings but are harder, denser, have a finer as-sprayed texture and will exhibit significantly better resistance to galling.

Coatings of EuTronic Arc 528 are well suited for the repair/rebuild of aluminum and magnesium parts, as well as, the reshaping of aluminum casting for model work.

A machined finish of less than 50 micro-inches AA can be achieved with high speed or carbide tooling.

TECHNICAL DATA

| Typical Values | |
|----------------------|---|
| Nominal Hardness: | 72 HRB (HR _{15T} 84) (Macrohardness) DPH ₃₀₀ 125 (Microhardness) |
| Deposit Efficiency: | 70% |
| Bond Strength: | 4000 psi on aluminum |
| Melting Temperature: | 1080°F (≈582°C) |
| Density: | 2.41 g/cc |
| Spray Rate: | 8 lb/hr/100 amps |
| Wire Coverage: | 0.01875 lb/ft ² /0.001" |
| Porosity: | < 2% typical |
| Machined Finish: | < 50 micro inches AA |

PROCEDURE FOR USE:

Surface should be clean, white metal, with no oxides (rust), dirt, grease, or oil on the surface to be coated.

Note: It is best not to handle surfaces after cleaning.

The recommended method of surface preparation on aluminum or magnesium parts is to grit blast with steel or cast iron shot. If aluminum oxide grit is used keep the blast air pressure at 30 psi or lower.

Please contact your Eutectic Surface Coatings Specialist for more information.

Spray Parameters:

| | |
|---------------|--------------|
| Diameter: | *1.6 mm |
| Air Pressure: | *50 – 60 psi |
| Voltage: | *28-30 |
| Amperage: | *50-200 |
| 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

- Reshape Aluminum Castings (Model Work)
- Repair Blowholes in Aluminum Castings
- Machine Element Repair – Aluminum, Magnesium Parts
- Rebuild Aluminum Fan Blades
- Coat Glass (Heat & Light Reflective Coating)

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 T55-85, "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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