



Composite Alloy Wire  
Made Exclusively for the  
Twin Wire Arc Spray Process

# **EuTronic® Arc**

## **595 Wire**



- Abrasion and corrosion resistant
- Increases hardness in service
- May be applied to a wide range of base metals without the use of auxiliary bond coat wires

# EuTronic® Arc 595AS

EuTronic Arc 595 is a composite alloy wire specifically designed for the twin wire arc process. It produces a hard, abrasive and corrosion resistant surface. When applied 0.010 inches thick, the material exhibits impressive elasticity for a coating this hard. Typical applications use coating thicknesses up to 0.060 inch.

Coatings of EuTronic Arc 595 will also exhibit the unique quality of increasing hardness in service. Environments of up to 1700°F are possible with this coating. Coatings can be ground using aluminum oxide and subsequently polished to under a 10RMS surface finish.

EuTronic Arc 595 can be applied to a wide range of base metal chemistries without the use of an auxiliary bond coat wire.

## TECHNICAL DATA

Typical Values	
Microhardness:	As sprayed: 60 HRC After abrasive load: 1180DPH
Bond Strength:	5800 psi (39.82 MPa) @ 20 mils thick
Deposit Rate:	8 lb/hr/100A (3.63 kg/hr/100A)
Deposit Efficiency:	70 % (parameter dependent)
Wire Coverage:	0.9 oz / ft <sup>2</sup> /mil (wire consumption)
Coating Density:	6.7 g/cc
Surface Texture:	Variable (dependent on spray parameters)
Coefficient of Thermal Expansion:	7 x 10 <sup>-6</sup> in/in -F (1000°F)
Melting Point:	2200°F (≈1204°C)
Wire Weight:	84 feet / lb @ 1/16 in. diam.

### Composition:

Proprietary highly alloyed chrome steel alloy

## 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.*

Recommended method of preparation is to grit blast with 24 mesh aluminum oxide, rough grind, or rough machine in a lathe.

Please contact your Eutectic Surface Coatings Specialist for more information.

### Spray Parameters:

Diameter: 1/16" (1.6 mm)  
Air Pressure: \*50 – 60 psi  
Voltage: \*30-32  
Amperage: \*100-200  
Standoff: \*3-5 in. (7-12 cm)

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

### Availability:

30 lb spool @ 1/16 inch diameter  
Part Number: 595AS-16-13.6K

## TYPICAL APPLICATIONS

- Exhaust fans
- Pump components
- Coal fired boilers
- Super heaters
- Economizer waterwalls
- Boiler tubes & boiler installations
- Lamella seals
- Fuller cooler plates

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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