



A Nickel-Chromium-Titanium Alloy Wire  
Made Exclusively for the  
Twin Wire Arc Spray Process

# **EuTronic® Arc**

## **545 Wire**



- Good resistance to mild abrasion
- Well suited for elevated temperature service
- Excellent coatings for boiler tubes

# EuTronic® Arc 545AS

EuTronic Arc 545AS is a nickel-chromium-titanium alloy wire specifically designed for the twin wire arc process.

The coatings produced are dense, well bonded and exhibit good resistance to mild abrasion and excellent resistance to corrosion.

Coatings of EuTronic Arc 545 are particularly well suited for elevated temperature service, up to 1825°F and have performed well in high sulfur and vanadium gaseous environments.

Coatings of EuTronic Arc 545 are widely used to protect boiler tubes in black liquor recovery boilers and coal fired utility boilers.

## TECHNICAL DATA

Typical Values	
Nominal Hardness:	32 HRC
Microhardness:	KN 313, 100 g load (HRC 32)
Deposit Efficiency:	80% - 90 % (parameter dependent)
Bond Strength:	7000 psi (grit blasted surface)
Melting Temperature:	2700°F (≈1842°C)
Tensile Strength:	24,000 psi (165.5 Mpa)
Spray Rate:	10 lb/hr/100 amps
Wire Coverage:	0.8 oz / ft <sup>2</sup> /mil (wire consumption)
Surface Texture:	300-350 micro-inches AA
Shrinkage	0.001 in/in (cm/cm)
Wire Weight:	87 feet / lb @ 1/16 in. diam.
Coeff. of Thermal Expansion:	6.6 X 10 <sup>-7</sup> in/in F

## 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.*

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

EuTronic Arc 545AS coatings can be finished by machining or grinding.

Please contact your Eutectic Surface Coatings Specialist for more information.

### Spray Parameters:

Diameter: 1/16" (1.6mm)  
Air Pressure: \*50 – 60 psi  
Voltage: \*30-32  
Amperage: \*100-200  
Standoff: \*4-6 in. (10-15 cm)

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

### Availability:

25 lb per spool @ 1/16 inch diameter  
Part Number: 545AS-16-11.34K

## TYPICAL APPLICATIONS

- Boiler Tubes - Black Liquor Recovery Boilers
- Boiler Tubes - Coal Fired Utility Boilers

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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