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## Copper Nickel Electrode

### ◆ INTRODUCTION

Aufhauser Copper Nickel Electrode is a 70% copper – 30% nickel electrode that offers excellent resistance to the corrosive effects of salt water.

### ◆ APPLICATIONS

- Shielded metal arc welding of wrought or cast 70/30, 80/20, and 90/10 copper nickels to themselves or to each other.
- Welding clad side of copper-nickel clad steel.
- May also be used for joining copper-nickel Alloy 400, R-405 and K500 or high nickel Alloy 200 to the copper-nickel alloys.

### ◆ CHEMICAL COMPOSITION

<u>Copper</u>	<u>Zinc</u>	<u>Tin</u>	<u>Manganese</u>	<u>Iron</u>	<u>Silicon</u>	<u>Nickel</u>	<u>Phosphorus</u>	<u>Lead</u>	<u>Titanium</u>
Remainder	*	*	1.00-2.50	.40-.75	0.50	29.0-33.0	.020	.02	.50

Note: Copper contains Silver. All values are maximum percentage, unless shown in range. Total other elements = .50  
 \* these elements must be included in total of other elements.

### ◆ PHYSICAL and MECHANICAL PROPERTIES

Current Used:	DC Reverse
Position(s):	All Position
Tensile Strength:	50,000 psi, min.
Yield Strength:	20,000 psi, min.
Elongation, in 2 in.:	30%
Brinell Hardness:	60-80

### ◆ SPECIFICATIONS MEET or EXCEED

- AWS/SFA5.6 Class ECuNi
- MIL-E-22200/4, Type MIL-CuNi (70/30)

### ◆ STANDARD SIZES AND DIAMETERS

<u>Diameters</u>	<u>Lengths</u>
3/32	12"
1/8	14"
5/32	14"
3/16	14"

*Copper and its alloys require a relatively high heat input with shortened welding time. Higher preheat temperatures and faster welding rates than for steel are necessary.*

EC715: Copper Nickel Electrode

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