Aufhauser
Corporation
39 West Mall
Plainview, NY 11803
Telephone:
516-694-8696
800-645-9486
Fax:
516-694-8690

Deoxidized Copper Electrode

♦ INTRODUCTION

Aufhauser Deoxidized Copper electrodes are manufactured from deoxidized copper wire to provide the best mechanical and metallurgically sound joints. The deposit is free of porosity and gives a tensile strength similar to that of most commercial copper types. Reactions with hydrogen in oxygen-free copper, and the segregation of copper oxide in tough pitch copper may detract from joint efficiency. Precautions should be taken to minimize dilution effects. Preheats to 700°F may be required.

♦ APPLICATIONS

- Shielded arc welding of deoxidized coppers, oxygen-free coppers, and tough pitch (electrolytic) coppers.
- Repairing or surfacing above mentioned metals, as well as steel and cast iron.
- Clad restoration on copper-clad vessels.

♦ CHEMICAL COMPOSITION

Copper	Zinc	Tin	Manganese	Iron	Silicon	Nickel	Phosphorus	Aluminum	Lead	Titanium
Remainder	*	*	0.10	0.20	0.10	*	*	0.10	0.02	---

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

Electrical Conductivity:	Excellent
Machinability:	Excellent
Color:	Copper
Current Used:	DC Reverse Polarity (electrode +)
Tensile Strength:	35,000 psi, max.
Elongation, in 4 in.:	35%
Rockwell F Hardness:	20-40

♦ SPECIFICATIONS MEET or EXC EED

- AWS A5.6 Class ECu
- ASME SFA5.6

♦ STANDARD SIZES AND DIAMETERS

Diameters	Lengths	Amperage
3/32	12”	70-90
1/8	14”	90-120
5/32	14”	110-140
3/16	14”	110-140

♦ MOST COMMON BASE METALS

CDA / UNS	DIN
C10100	OF-Cu
C11000	E-Cu
C10300	SE-Cu
	SW-Cu
C11020	F-Cu
C12200	SF-Cu

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.