

## Naval Bronze

### ◆ INTRODUCTION

Aufhauser Naval Bronze is a 1% tin-copper-zinc filler metal. The addition of tin improves strength and corrosion resistance in the weld deposit. Naval Bronze does not provide as high a weld strength as Low Fuming Bronze (RBCuZn-C, C681). A borax-boric acid flux such as Aufhauser Flux600 is generally required. Joint clearances should be 0.002" to 0.005" wide. Preheating may be desirable for some applications. A neutral or slightly oxidizing flames should be used.

### ◆ APPLICATIONS

- Brazing or oxyacetylene welding of steel, cast iron, malleable iron, copper-bronze and nickel alloys.

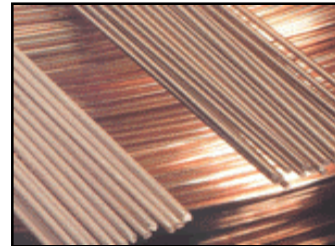
### ◆ CHEMICAL COMPOSITION

<u>Copper</u>	<u>Aluminum</u>	<u>Lead</u>	<u>Tin</u>	<u>Zinc</u>
57.0-61.0	.01	.05	.25-1.0	Remainder

Note: Copper contains Silver. All values are maximum percentage, unless shown in range.

### ◆ PHYSICAL and MECHANICAL PROPERTIES

Melting Point:	1625 °F
Solidification:	1610 °F
Tensile Strength:	55,000 psi, avg.
Elongation, in 2 in.:	30%
Brinell Hardness:	80



### ◆ SPECIFICATIONS MEET or EXCEED

- AWS A5.8 Class RBCuZn-A
- ASME SFA5.8 Class RBCuZn-A
- QQ-R-571C
- QQ-B-650
- MIL-R-19631B Type RCuZn-A
- MIL-B-7883

### ◆ STANDARD SIZES AND DIAMETERS

<u>Diameters</u>	<u>Round Wire</u>	<u>Rod</u>
1/32", 1/16", 3/32",	Not specified	18"
1/8", 5/32", 3/16",		36"
1/4", 5/16", 3/8"		

*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.*