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Low Fuming Bronze Nickel

♦ INTRODUCTION

Aufhauser Low Fuming Bronze Nickel is similar to Naval Bronze (C470). The addition of iron and manganese increases the hardness and strength of the weld deposit while nickel ensures uniform distribution of iron in the deposit. A boric acid or borax type flux such as Aufhauser Flux600 is recommended. A neutral or slightly oxidizing flame should be used. Preheating may be required for some applications. Also available pre-coated with the appropriate flux.

♦ APPLICATIONS

- Braze or oxyacetylene welding of steel, cast iron, brass and bronze.
- Building up wearing surfaces and bearings.

♦ CHEMICAL COMPOSITION

Copper	Lead	Iron	Tin	Zinc	Nickel	Aluminum	Manganese	Silicon
56.0-60.0	0.05	0.25-1.25	0.75-1.10	Remainder	0.20-0.80	0.01	0.01-0.50	0.04-0.15

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

♦ PHYSICAL and MECHANICAL PROPERTIES

Melting Point:	1620°F
Solidification:	1590°F
Density at 68°F:	.296 lb/in^3
Specific Gravity:	8.19
Tensile Strength:	65,000 psi
Elongation, in 2 in.:	25%
Brinell Hardness:	92

♦ SPECIFICATIONS MEET or EXCEED

- AWS A5.8 Class RBCuZn-B
- ASME SFA5.8 Class RBCuZn-B
- QQ-R-571C
- MIL-R-19631B

♦ STANDARD SIZES AND DIAMETERS

Diameters	Round Wire	Rod
1/32”, 1/16”, 3/32”, 1/8”, 5/32”, 3/16”, 1/4”, 5/16”, 3/8”	Not specified	18” 36”

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.