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Low Fuming Bronze

◆ INTRODUCTION

Aufhauser Low Fuming Bronze, with its low melting point, is easily machinable and excellent for sheet metal work. This alloy possesses high tensile strength and good ductility. Weld deposits are non-porous, giving leak proof joints for water, oil or gas lines. Quick wetting action provides a sound foundation for a dependable weld. The weld deposit rapidly changes from a fluid to a plastic state; it freezes fast. Preheating is required for some applications and Aufhauser Brazing Flux is generally recommended. Joint clearances from 0.002 to 0.005 in. are suitable. Also available pre-coated with Aufhauser flux.

Major advantages

- Joints are made at lower temperature than in gas or arc welding
- Minimizes thermal stress and distortion
- Less susceptibility to cracking
- Soft and ductile weld deposits
- Easy machinability
- Low residual stress
- High strength fillets
- Simple, mobile equipment is simple for on-site repair

Metals to be braze welded

- Steels, cast irons, copper alloys, nickel alloys and stainless steel.

Uses

- production joining applications
- repairing broken or defective steel and cast iron parts
- repairing cast iron castings in the foundry
- machine shops, for correcting machining errors or modifying in-process parts
- maintenance departments and tool rooms for repairing tools and equipment
- mobile repair units (grain-harvesting crews, ship repairs)

◆ CHEMICAL COMPOSITION

| Copper | Aluminum | Iron | Lead | Manganese | Silicon | Tin | Zinc |
|-----------|----------|---------|------|-----------|---------|---------|-----------|
| 56.0-60.0 | .01 | .25-1.2 | .05 | .01-.50 | .04-.15 | .80-1.1 | Remainder |

Notes: a. Single Values are maximum, unless noted
 b. Silver residual is included
 c. Copper + Named elements = 99.5% min.

◆ PHYSICAL and MECHANICAL PROPERTIES

| | |
|------------------------|------------|
| Melting Point: | 1630°F |
| Solidification: | 1595°F |
| Tensile Strength, avg: | 65,000 psi |
| Elongation, in 2 in.: | 25% |
| Brinell Hardness: | 96 |



◆ SPECIFICATIONS MEET or EXCEED

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

◆ STANDARD SIZES AND DIAMETERS

| Diameters | Rod |
|--------------------|------------|
| 1/16", 3/32", 1/8" | 18" or 36" |
| 1/4", 3/8" | 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.

C681: Low Fuming Bronze

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