

# **Aluminum Bronze A2**

Unibraze Aluminum Bronze A2 is a very versatile alloy available in coated electrodes or bare wire. It is used for joining aluminum bronze of similar composition, silicon and manganese bronze, high strength copper-zinc alloys, some copper-nickel alloys, ferrous metals and dissimilar metals. Dissimilar applications include aluminum bronze to steel and copper to steel. It is also used for building up or overlaying metal for wear and corrosion resistant surfaces. Unibraze Aluminum Bronze A2 is most commonly used for marine maintenance and repair welding of ship propellers, pump housings, rigging jacks, piston heads, bearings and many overlay or surfacing applications.

# Bare (ERCuAl-A2)

### **Typical Chemical Composition**

Balance
8.5 - 11.0
1.50 max.
.10 max.
0.50 max.

# **Typical Mechanical Properties**

Tensile Strength, ksi	79 (545 MPa)
Yield Strength, ksi	35 (241 MPa)
Elongation, in 2 in.	28%
Reduction of area	28%
BHN (3000 kg)	
<sup>1</sup> /4" (6.4 mm) deposit	140

### **Specifications**

AWS A5.7 / ASME SFA 5.7 Class ERCuAl-A2 AWS A5.13 Class ERCuAl-A2

# **Available Sizes**

MIG: .035" (.9mm), .045" (1.2mm), .062" (1.6mm) TIG: 1/16" (1.6mm), 3/32" (2.4mm), 1/8" (3.2mm), 5/32" (4.0mm)

# Coated (ECuAl-A2)

### **Typical Chemical Composition**

Copper*	Balance
Aluminum	8.5 - 11.0
Iron	1.50 max.
Silicon	1.50 max.
Others (+ Tin)	0.50 max.
*includes Silver	

# **Typical Mechanical Properties**

Tensile Strength, ksi	77 (531 MPa)
Yield Strength, ksi	35 (241 MPa)
Elongation, in 2 in.	27%
Reduction of area	27%
BHN (3000 kg)	
<sup>1</sup> ⁄4" (6.4 mm) deposit	119

### **Specifications**

AWS A5.6 / ASME SFA 5.6 Class ECuAl-A2 AWS A5.13 Class ECuAl-A2

# **Available Sizes**

3/32" (2.4mm), 1/8" (3.2mm), 5/32" (4.0mm), 3/16" (4.8mm)