Crown ALB-10-2

Gas Tungsten Arc Welding (GTAW) TIG Alloy

Copper Based Alloy

"The Royal Line"
CROWN ALLOYS COMPANY
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Universal Aluminum Bronze TIG Alloy for a Wide Variety of Ferrous and Nonferrous Metals

Typical Applications

Crown ALB-10-2 is a versatile and highly alloyed bronze alloy used to weld a wide variety of ferrous and non-ferrous metals. This alloy is used to join aluminum bronze, high strength copper-zinc alloys, silicon bronze, copper-nickel alloys, manganese bronze, tin bronze (phosphor bronze), cast and malleable iron, high and low carbon steels, tool steels, stainless steel and some nickel alloys **to themselves and each other!**
Crown ALB-10-2 is also designed for surfacing wear resistant and corrosion resistant bearing surfaces. This alloy is commonly used to repair and maintain bearings, bushings, pump housings, hydraulic pistons, brake drums, paper mill rolls, motor bases, valve seats, gears, press rams, ship propellers & turbine runners.

Specifications

- Alloy Type: AWS A5.7/A5.7M ER CuAl-A2
- Tensile Strength: Up to 91,000 PSI (on steel); Up to 77,000 PSI (on aluminum bronze)
- Yield Strength: Up to 35,000 PSI
- Elongation in 2": 28%
- Hardness: 120 - 160 Brinell

Procedure

Clean base metal thoroughly. Direct current electrode negative (dcen) is preferred although alternating current high frequency (achf) can be used on thin material only. Pure helium is recommended although 100% argon is appropriate on thin sections. Gas flow should be set at 40-55 cfh (helium) or 20-25cfh (argon). A sharp, pointed 2% thoriated tungsten electrode should be used. Add **ALB-10-2** to the leading edge of the weld pool. Do not allow the arc to come in contact with the end of the filler rod. The tungsten should extend $^{1}/_{4}$" to $^{3}/_{8}$" beyond the cup of the welding torch. Maintain an arc length of $^{1}/_{16}$" to $^{3}/_{16}$".

Metal to be welded	Preheat and Interpass Temperatures
Carbon Steels between 0.29% to 0.60% carbon	300ºF to 600ºF preheat depending on the carbon content
Cast Iron	300ºF to 400ºF preheat (slow cool)
Aluminum Bronze up to 10% aluminum	no preheat - 300ºF interpass temperature
Aluminum Bronze exceeding 10% aluminum	300ºF preheat - 600ºF interpass temperature
Manganese Bronze	300ºF preheat
Copper	1000ºF preheat

Sizes, Volts, Amps and Part Numbers

Diameter	Amperage*		Part Numbers	
	(dcen)	(achf)	1 lb package	5 lb package
1/16 x 36"	70 – 120	70 – 150	CTALB2/TL-BP	CTALB2/TL
3/32 x 36"	120 – 160	140 – 230	CTALB2/TN-BP	CTALB2/TN
1/8 x 36"	170 – 230	225 – 320	CTALB2/TO-BP	CTALB2/TO

*Use low side of range for iron or nickel based alloys; middle of range for bronze alloys; high side for copper

!!!! WARNING !!!!

WELDING FUMES AND GASES CAN BE DANGEROUS TO YOUR HEALTH.

BEFORE USING THIS PRODUCT THE WELDER (END-USER) MUST READ AND UNDERSTAND THE COMPLETE PRODUCT WARNING LABEL AND THE NEW 16 SECTION SAFETY DATA SHEET (SDS).

THE SAFETY DATA SHEET (SDS) WHICH OUTLINES THE POTENTIAL HEALTH HAZARDS AND SAFETY INFORMATION RELATED TO THIS PRODUCT CAN BE DOWNLOADED FROM THE SDS PORTION OF THIS WEBSITE. IT IS ALSO AVAILABLE FROM YOUR EMPLOYER AND WELDING SUPPLY DISTRIBUTOR.

DO NOT PROCEED WITH USE OF THIS PRODUCT UNTIL YOU READ AND UNDERSTAND THE SAFETY DATA SHEET (SDS) AND PRODUCT WARNING STATEMENT.

BE SURE TO CONSULT THE LATEST VERSION OF THE SDS.

SEE THE PRODUCT WARNING LABEL AND SDS FOR COMPLETE WARNING INFORMATION.