Inweld Aluminum Bronze A-2

AWS A5.7 ERCuAl-A2

Chemical Composition of Aluminum Bronze A-2

Fe	Zn	Sn	Al	Pb	Mn	Si	Р	Ti	Cu	Other
1.5	0.02		8.0-	0.02		0.10			Balance	0.50
			11.0							

Single values are maximum unless otherwise specified.

Description and Applications

Inweld Aluminum Bronze A-2 is an iron-bearing copper-aluminum MIG & TIG filler metal primarily designed for joining aluminum bronze, silicon bronze and manganese bronze, some high strength copper-zinc and copper-nickel alloys as well as many ferrous metals such as steel, cast iron and even galvanized iron. Inweld Aluminum Bronze A-2 is excellent for joining dissimilar metal combinations such as aluminum bronze to steel or copper to steel. Inweld Aluminum Bronze A-2 is excellent for overlays exposed to frictional wear or corrosive media such as salt water, alkalis and some acids. Weld deposits demonstrate high mechanical properties, tensile strength, yield strength and hardness. Many common applications include maintenance and repair of ship propellers, hydraulic pistons, impellers, tractor gear housings, brake drums, paper mill rolls, pickling hooks, valve seats, bushings, foundry flasks and mixer arms. Inweld Aluminum Bronze A-2 has many applications since it is the "all-purpose workhorse alloy" of the copper based filler metals. Weld deposits will work-harden under compressive loads.

Typical Weld Metal Properties

	<u>AWS Spec</u>
Average As-Welded Brinell Hardness:	130-150
Tensile Strength:	60,000 psi
Yield Strength:	35,000 psi
Elongation:	28%
Recommended Parameters	

GMAW (DCRP – Electrode+) 100% Ar or a 75% Ar / 25% He Mixture

Wire Diameter	<u>Voltage</u>	<u>Amperage</u>
0.035"	20-26	100-200
0.045"	22-28	100-250
1/16"	29-32	250-400
3/32"	32-34	350-500

INWELDCORPORATION.COM

Pennsylvania 3962 Portland Street Coplay, PA 18037 North Carolina 1029 S. Marietta St. Gastonia, NC 28054 Texas 9300 Lawndale St. Houston, TX 77012 California 6201 Coliseum Way, Unit A Oakland, CA 94621 GTAW (DCSP – Electrode-) ACHF using 100% Ar or He 2% Thoriated, 2% Ceriated or Lanthanum Tungsten Electrode

Wire Diameter	<u>Voltage</u>	<u>Amperage</u>
1/16"	70-120	70-150
3/32"	120-160	140-230
1/8"	170-230	225-320
5/32"	220-280	175-300
3/16"	280-330	200-320

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