

Inweld Phos-Bronze C

AWS A5.7 ERCuSn-C

Chemical Composition of Inweld Phos-Bronze C

Fe	C	Zn	Sn	Pb	Mn	Si	P	S	Cu	Other
0.10	---	0.20	7.0-9.0	0.02	---	---	0.010-0.35	---	Balance	0.50

Single values are maximum unless otherwise specified.

Description and Applications

Inweld Phos-Bronze C MIG & TIG filler metal is used for joining carbon steel and cast iron parts to copper, brass and bronze. It is also used for surfacing applications on shafts, pumps, impellers and propeller blades as well as for building-up bearing journals and frictional wear surfaces. The higher tin (Sn) content (7.0-9.0%) gives Phos-Bronze C weld deposits higher tensile and yield strengths than Phos-Bronze A. Inweld Phos-Bronze C is sometimes used as a “gunmetal” substitute. Preheating is not required, however when welding thick sections – a preheat and inter-pass temperature of 350 to 400 F (177 to 204 C) will improve metal fluidity. Rapid cooling at room temperature is recommended.

Typical Weld Metal Properties

	<u>AWS Spec</u>
Average As-Welded Brinell Hardness:	68
Tensile Strength:	35,000 psi
Yield Strength:	
Elongation:	

Recommended Parameters

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

<u>Wire Diameter</u>	<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

GTAW (DCSP – Electrode-) 100% Ar or He 2% Thoriated, 2% Ceriated or Lanthanum Tungsten Electrode

<u>Wire Diameter</u>	<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

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