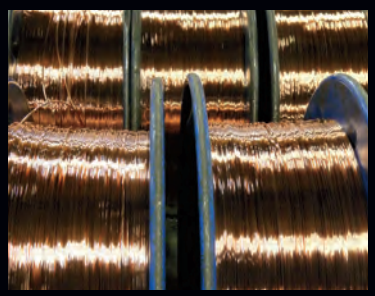
Wisconsin
Wire Works, Inc.

Copper Alloy Welding Wire


MADE IN USA

Drawn to Quality

Who we are...

Wisconsin Wire Works Inc. is an integrated manufacturer of copper and copper alloy welding wire. Five copper-industry veterans founded our company in 1994, and in a relatively short time, we've built an enviable reputation as a reliable supplier of top-quality, made-in-the-USA welding products. Today, our customers can be found on every continent.

If there's a secret to our success, it's that we listen to our customers. We're small enough to know our customers well, and we survey them regularly to learn how we can serve them better. In return, our customers tell us they've come to rely on us for the quality of our wire, our timely delivery and our prompt, personal service.

Drawn to quality...

Wisconsin Wire Works Inc.'s welding consumables are made by welding professionals for welding professionals. Our facilities reflect our founders' decades of combined experience; designed for efficient economical manufacturing yet flexible enough to accommodate changing market needs.

Our base stocks are purchased from well-established suppliers. Our drawing equipment is state-of-the-art, and we maintain it carefully. One small example: we rework our drawing dies on a regular schedule -- not just when they need it -- and the extra effort shows in the surface quality of our wire.

Our inspection program is thorough and unforgiving. No product leaves our plant unless it meets or exceeds established quality standards for size, cleanliness and proper cast and helix.

Speaking of cleanliness, our manufacturing facilities are located in a state known for its natural beauty, and we strive to be good neighbors to our environment. We select and use process materials so as to keep landfill utilization to a minimum. We use non-contaminating lubricants exclusively, and we clean all products thoroughly before shipment.

Our staff of experienced welding engineers, metallurgists and fabrication specialists is ready to help you solve your welding problems. We invite you to call us for more information about our products and services.

Our standard spools are precision layer-level wound to ensure smooth and reliable feeding, an important consideration for automatic and robotic welding applications. Products are available in all popular U.S. and international weights on spools, straightened-and-cut lengths, reels, coils and economical drum packs. We use only robust cartons incorporating hermetic moisture barriers to guarantee good appearance and long shelf life. International shipments are boxed for safety and security.

SILICON BRONZE – WWW SIL WELD

ER CuSi-A filler metal is a copper-base alloy containing approximately 3% silicon. It is used for gas tungsten and gas metal arc welding of copper-silicon and copper-zinc alloys (brass) and for welding steel to itself or to these alloys. WWW SIL WELD is particularly suited to weld galvanized (zinc coated) steels since it does not destroy the zinc coating in the vicinity of the weld, thereby retaining its corrosion protection, while the bronze weld metal itself is highly corrosion resistant.

AWS A5.7 / ER CuSi-A

Product	Diameter							
	0.030 in 0.8 mm	0.035 in 0.9 mm	0.045 in 1.2 mm	0.062 in 1.6 mm	3/32 in 2.4 mm	1/8 in 3.2 mm	5/32 in 4.0 mm	3/16 in 4.8 mm
36 in BARE (914 mm)				●	●	●	●	●
30 lb SPOOLS (13.6 Kg)	●	●	●	●	●			
250 lb or 500 lb DRUM PACKAGING	●	●	●	●				
10 lb SPOOL PACKING	●	●						

DEOXIDIZED COPPER – WWW COPP WELD

ER Cu filler metal is deoxidized copper with small quantities of phosphorus, silicon, tin, and manganese. The phosphorus and silicon are primarily deoxidizers, and silicon and other elements improve fluidity and ease of welding. This metal is normally used to weld deoxidized copper (C12000 and C12200) and electrolytic tough pitch copper (C11000). Preheating is desirable for most work, but it is essential for heavier gauge welding. Preheating temperatures of 400° F to 1OOO° F (205° C to 540° C) are suitable.

AWS A5.7 / ER Cu

Product	Diameter						
	0.035 in 0.9 mm	0.045 in 1.2 mm	0.062 in 1.6 mm	3/32 in 2.4 mm	1/8 in 3.2 mm	5/32 4.0 mm	3/16 4.8 mm
36 in BARE (914 mm)			●	●	●	●	●
30 lb SPOOLS (13.6 Kg)	●	●	●	●			
25 lb AND 50 lb COIL				●	●		

PHOSPHOR BRONZE A – WWW PHOS A WELD

ER CuSn-A filler metal is a copper-tin alloy containing about 5% tin. It is used to weld bronze, brass and copper. Phosphor Bronze A is frequently used to repair castings and join copper-tin alloys of similar chemical composition.

AWS A5.7 / ER CuSn-A

Product	Diameter				
	0.035 in 0.9 mm	0.045 in 1.2 mm	0.062 in 1.6 mm	3/32 in 2.4 mm	1/8 in 3.2 mm
36 in BARE (914 mm)			●	●	●
30 lb SPOOLS (13.6 Kg)	●	●	●	●	

PHOSPHOR BRONZE C – WWW PHOS C WELD

ER CuSn-C contains 8% tin. It is similar in composition to AWS 5.6 ECuSn-C except that it is offered here as a bare wire filler metal. It is harder and stronger than AWS 5.7 ER CuSn-A, and is preferred for welding phosphor bronzes, high strength bronzes and brasses. The alloy's color matches phosphor bronze well.

WWW PHOS C WELD is used with gas tungsten arc (GTAW) and gas metal arc (GMAW) welding processes.

AWS A5.7 / ER CuSn-C

Product	Diameter				
	0.035 in 0.9 mm	0.045 in 1.2 mm	0.062 in 1.6 mm	3/32 in 2.4 mm	1/8 in 3.2 mm
36 in BARE (914 mm)			●	●	●
30 lb SPOOLS (13.6 Kg)	●	●	●	●	

LOW-FUMING BRONZE – WWW LOW-FUMING BRONZE

Low-Fuming Bronze-C (also called Low-Fuming Brass-C) is a popular copper-zinc brazing alloy that is commonly used for oxyacetylene welding of brasses and for brazing copper and copper alloys to carbon and low alloy steels, cast iron, tool steels and nickel alloys. The alloy can also be used to braze combinations of these metals when high corrosion resistance is not demanded.

WWW LOW-FUMING BRONZE is recommended for the OFW welding and brazing process using AWS classification FB3-K flux. This alloy should not be used with arc welding processes.

AWS A5.27 RCuZn-C / AWS A5.8

Product	Diameter			
	1/16 in 1.6 mm	3/32 in 2.4 mm	5/32 in 4.0 mm	3/16 in 4.8 mm
36 in BARE (914 mm)	●	●	●	●
30 lb SPOOLS (13.6 Kg)	●			

ALUMINUM BRONZE A1 – WWW A1 BRONZE WELD

AWS A5.7 / ER CuAl-A1

Product	Diameter				
	0.035 in 0.9 mm	0.045 in 1.2 mm	0.062 in 1.6 mm	3/32 in 2.4 mm	1/8 in 3.2 mm
36 in BARE (914 mm)			●	●	●
30 lb SPOOLS (13.6 Kg)	●	●	●	●	
250 lb or 500 lb DRUM PACKAGING	●	●	●		

ER CuAl-A1 filler metal is a moderate-strength aluminum bronze alloy predominantly used for weld overlay and metallizing in automotive and other manufacturing applications and for the build-up and repair of bearing and corrosion-resistant surfaces. It is not intended for use in joining.

WWW A1 BRONZE WELD is used with gas tungsten arc (GTAW) and gas metal arc (GMAW) welding processes as well as arc and plasma metallizing.

ALUMINUM BRONZE A2 – WWW A2 BRONZE WELD

AWS A5.7 / ER CuAl-A2

Product	Diameter				
	0.035 in 0.9 mm	0.045 in 1.2 mm	0.062 in 1.6 mm	3/32 in 2.4 mm	1/8 in 3.2 mm
36 in BARE (914 mm)			●	●	●
30 lb SPOOLS (13.6 Kg)	●	●	●	●	
25 lb and 50 lb COIL				●	●

ER CuAl-A2 filler metal is an intermediate-strength aluminum bronze alloy used for welding aluminum bronze plate fabrications and for joining dissimilar metals such as cast iron, carbon steels, copper, bronze and copper-nickel materials. Applications include wear surface reconstruction, casting repair and general maintenance, and galvanized sheet metal fabrication when high strength welds are required.

WWW A2 BRONZE WELD is used with gas tungsten arc (GTAW) and gas metal arc (GMAW) welding processes as well as arc and plasma metallizing.

ALUMINUM BRONZE A3 – WWW A3 BRONZE WELD

AWS A5.7 / ER CuAl-A3

Product	Diameter			
	0.045 in 1.2 mm	0.062 in 1.6 mm	3/32 in 2.4 mm	1/8 in 3.2 mm
36 in BARE (914 mm)		●	●	●
30 lb SPOOLS (13.6 Kg)	●	●	●	

ER CuAl-A3 filler metal is a high-strength aluminum bronze alloy used mainly for welding aluminum bronze castings of similar composition. It also finds considerable use for the build-up and repair of bearing surfaces of copper alloy parts.

WWW A3 BRONZE WELD is used with gas tungsten (GTAW) and gas metal arc (GMAW) welding processes.

NICKEL-ALUMINUM BRONZE – WWW NICKEL BRONZE WELD

AWS A5.7 / ER CuNiAl

Product	Diameter				
	0.035 in 0.9 mm	0.045 in 1.2 mm	0.062 in 1.6 mm	3/32 in 2.4 mm	1/8 in 3.2 mm
36 in BARE (914 mm)			●	●	●
30 lb SPOOLS (13.6 Kg)	●	●	●	●	

ER CuNiAl is used to join and repair wrought and cast nickel aluminum bronze materials. Typical applications include the fabrication or repair or ship fittings and propellers, and other components subject to salt and brackish water.

MANGANESE-NICKEL ALUMINUM BRONZE – WWW MANG-NICKEL BRONZE WELD

AWS A5.7 / ER CuMnNiAl

Product	Diameter				
	0.035 in 0.9 mm	0.045 in 1.2 mm	0.062 in 1.6 mm	3/32 in 2.4 mm	1/8 in 3.2 mm
36 in BARE (914 mm)			●	●	●
30 lb SPOOLS (13.6 Kg)	●	●	●	●	

ER CuMnNiAl is used in applications that require resistance to cavitation, erosion, and corrosion. This alloy is also used to join or repair high-strength bronzes of similar chemical composition and for high-strength repairs of cast iron.

We offer technical support for the products we make. An in-house welding facility is available for:

- Custom Overlays
- Process and prototype development
- Dissimilar metals joining
- Problem solving

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NOMINAL CHEMICAL VALUES											
WWW Alloy	Cu	Zn	Sn	Mn	Fe	Si	Ni	P	Al	Pb	Total Others
WWW Copp Weld	98.0	-	1.0	0.50	-	0.50	-	0.15	0.01	0.02	0.50
WWW Sil Weld	Bal	1.00	1.0	1.5	0.50	2.8 - 4.0	-	-	0.01	0.02	0.50
WWW A1 Bronze Weld	Bal	0.20	-	0.50	-	0.10	-	-	6.0 - 8.5	0.02	0.50
WWW A2 Bronze Weld	Bal	0.02	-	-	1.5	0.10	-	-	8.5 - 11.0	0.02	0.50
WWW A3 Bronze Weld	Bal	0.10	-	-	2.0 - 4.5	0.10	-	-	10.0 - 11.5	0.02	0.50
WWW Nickel Bronze Weld	Bal	0.10	-	.60 - 3.50	3.0 - 5.0	0.10	4.0 - 5.50	-	8.50 - 9.50	0.02	0.50
WWW Mang-Nickel Bronze Weld	Bal	0.15	-	11.0 - 14.0	2.0 - 4.0	0.10	1.5 - 3.0	-	7.0 - 8.5	0.02	0.50
WWW Phos A Weld	Bal	-	4.0 - 6.0	-	-	-	-	.10 - .35	0.01	0.02	0.05
WWW Phos C Weld	Bal	0.20	7.0 - 9.0	-	0.10	-	-	.03 - .35	-	0.05	-
WWW Low-Fuming Bronze	56.0 - 60.0	Bal	.75 - 1.10	.01 - .50	.25 - 1.25	.04 - .15	-	-	0.01	0.05	-

STANDARD PACKAGING SPOOLED WIRE										
Diameter	.030	.8mm	.035	.9mm	1.0mm	.045	1.2mm	.062	1.6mm	.092
2#	•	•	•	•	-	-	-	-	-	-
10#	•	•	•	•	•	•	•	-	-	-
25#	•	•	-	-	-	-	-	-	-	-
30#	-	-	•	•	•	•	•	•	•	•

STANDARD PACKAGING BARE FILLER ROD -- 36˝ LENGTHS						
Diameter	1/16	3/32	1/8	5/32	3/16	1/4
50# ctn.	•	•	•	•	•	•

Also available in 10# cartons at an additional cost.

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