

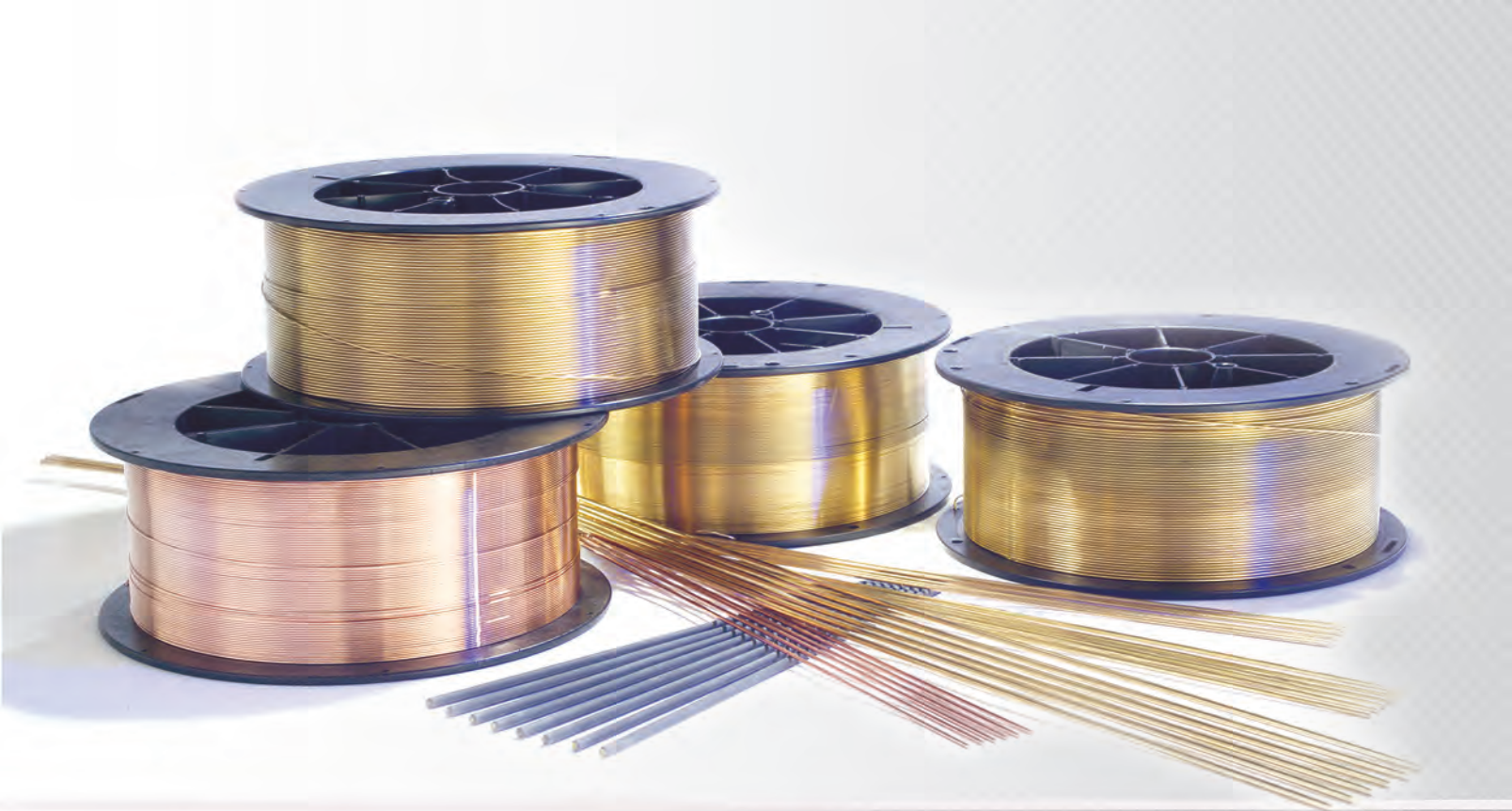


**WELDING WIRE AND COVERED ELECTRODES**  
AMPCO-TRODE®, AMPCO-CORE®, COPR-TRODE®, SIL-TRODE®  
ALUMINUM BRONZE  
MANGANESE NICKEL ALUMINUM BRONZE  
COPPER



**AMPCO METAL EXCELLENCE IN ENGINEERED ALLOYS**





#### **AMPCO-TRODE® 7**

An iron-free aluminum bronze alloy available in spooled wire and 36" (914 mm) bare filler rod for use in overlaying bearing and corrosion-resistant surfaces.

Conforms to Class CuAl-A1 of specifications ASME-SFA5.7 and AWS-A5.7.

Typical Applications: Impellers, Chemical Plant, Pulp Mill.

#### **AMPCO-TRODE® 46**

A nickel-aluminum bronze available in covered electrodes, spooled wire and 36" (914 mm) bare rod. Recommended for corrosion, erosion and cavitation applications requiring joining or overlaying alloys like MIL-B-21230A alloy 1. Conforms to Class CuNiAl of specifications ASME-SFA-5.7; AWS-A5.6; AWS-A5.7 and MIL-E-23765/3A.

Typical Applications: Welding AMPCO® 45, Ship Propellers & fittings, power plant valves, marine propulsion systems.

#### **AMPCO-CORE® 200**

An iron-bearing aluminum bronze alloy available in spooled wire for joining similar alloys and overlaying bearing surfaces requiring resistance to "squashing" under heavy compressive loads. Average deposit hardness 183 BHN.

#### **AMPCO-TRODE® 10**

A versatile aluminum bronze alloy available in covered electrodes, spooled wire and 36" (914 mm) bare filler rod for joining like and dissimilar metals and for overlay of bearing, wear- and corrosion-resistant surfaces. Conforms to Class CuAl-A2 of specifications ASME-SFA-5.7; AWS-A5.6; AWS-A5.7; MIL-E-23765/3A.

Typical Application: Bearing Surfaceing, Bushing, Propellers, Press Rams, Hydraulic Pistons etc.

#### **AMPCO-TRODE® 150**

An iron-bearing aluminum bronze alloy available in spooled wire and 36" (914 mm) bare filler rod for use in overlaying bearing surfaces requiring medium hardness, high strength and good ductility.

Conforms to Class CuAl-A3 of specifications ASME-SFA-5.7; AWS-A5.7. Typical Applications: Welding AMPCO® 18, bearing overlays, hydraulic pistons, steel mill rolls, impellers, press rams.

#### **AMPCO-CORE® 250**

An iron-bearing aluminum bronze available in spooled wire. Used for extreme bearing and wear-resisting applications, drawing and forming die repairs, and die overlays. Average deposit hardness 250 BHN.

#### **AMPCO-TRODE® 40**

A manganese-nickel-aluminum bronze available in covered electrodes, 36" (914 mm) bare rod and spooled wire. Used for joining and overlaying corrosion resistant alloys like MIL-B-21230A alloy 2 for marine applications. Conforms to Class CuMnNiAl of specifications AWS-A-5.6; ASME-SFA-5.7; AWS-A5.7.

Typical Applications: Ship Propellers, Marine Components, welding cast iron, joining dissimilar metals.

#### **AMPCO-TRODE® 160**

An iron-bearing aluminum bronze alloy available only in covered electrodes. Used for bearing surfaces, dissimilar metal joining and erosion- and cavitation-resistant applications where more strength is required than produced by AMPCO-TRODE® 10. Conforms to Class CuAl-B of specification AWS-A5.6.

Typical Applications: Bearing overlays, Bronze castings, Strip mill guides, drop hammers, gate valves.

#### **AMPCO-CORE® 300**

The hardest iron-bearing aluminum bronze available in spooled wire. Used for drawing and forming dies and overlaying bearing surfaces requiring maximum resistance to compressive loads. Average deposit hardness 364 BHN.



# INNOVATIVE SOLUTIONS for your industry

## AMPCO METAL

specializes in the production of copper and copper alloys to produce high-quality welding rod, electrodes and spooled wire.

## AMPCO® COPPER & COPPER ALLOY WELDING PRODUCTS

Since 1914, AMPCO METAL has pioneered and developed special bronze alloys. Today, our metallurgical expertise results in products that are used around the world.

This experience has given AMPCO METAL deep knowledge in the application and use of copper alloys – all of which is reflected in the development and perfection of bronze welding products. AMPCO METAL is the industry leader in this specialized field.

With this level of expertise, you can rely on AMPCO® welding products to provide the highest level of quality in every respect.

For the location of the nearest AMPCO METAL representative or for assistance in the selection and use of AMPCO® copper and copper-alloy welding products, visit our website [www.ampcometal.com/welding](http://www.ampcometal.com/welding)

### AMPCO-TRODE® 940

AMPCOLOY® 940 is an alloy developed to provide an effective alternative to beryllium copper, with higher thermal conductivity - for shorter cycle times. One of its principle applications is for molds and mold components in the plastics industry. Because of its excellent thermal conductivity, thermal diffusivity, wear resistance and corrosion resistance, AMPCO-TRODE® 940 welding filler metal is specified for the repair of complex AMPCOLOY® 940 molds used in plastic injection molding. Intended for minor welding repair only.

### COPR-TRODE®

A deoxidized copper available in spooled wire and 36" (914 mm) bare rod. Used for joining and overlaying copper plate, castings and wrought products where maximum electrical and thermal conductivity are required. Conforms to Class Cu of specifications ASME-SFA-5.7; AWS-A5.7. Typical Applications: Billet Molds, Steel Mill electrode holder, conductor rolls, bus bars, copper connectors..

### SIL-TRODE®

A silicon bronze welding alloy for the inert gas arc welding of copper-silicon, copper-zinc, copper to itself and also to mild steel. Used extensively in the welding of galvanized steel. Conforms to Class CuSi-A of specification AWS-A5.7.

## NOMINAL CHEMICAL VALUES

	Cu	Zn	Sn	Mn	Fe	Si	Ni	Cr	P	Al	Pb	Total Others
AMPCO-TRODE® 7	balance	0.20	-	0.50	-	0.10	-	-	-	6.00 - 8.50	0.02	0.50
AMPCO-TRODE® 10	balance	0.02	-	-	0.50 - 1.50	0.10	-	-	-	8.50 - 11.0	0.02	0.50
AMPCO-TRODE® 40	balance	0.15	-	11.00 - 14.00	2.00 - 4.00	0.10	1.50 - 3.00	-	-	7.00 - 8.50	0.02	0.50
AMPCO-TRODE® 46	balance	0.10	-	.60 - 3.50	3.00 - 5.00	0.10	4.00 - 5.50	-	-	8.50 - 9.50	0.02	0.50
AMPCO-TRODE® 150	balance	0.10	-	-	2.00 - 4.50	0.10	-	-	-	10.00 - 11.50	0.02	0.50
AMPCO-TRODE® 160	balance	-	-	-	2.50 - 5.00	1.50	-	-	-	9.50 - 11.50	0.02	0.50
AMPCO-CORE® 200	balance	-	-	-	4.00	-	-	-	-	9.00	-	0.50
AMPCO-CORE® 250	balance	-	-	-	4.00	-	-	-	-	11.50	-	0.50
AMPCO-CORE® 300	balance	-	-	-	4.00	-	-	-	-	13.50	-	0.50
AMPCO-TRODE® 940	balance	-	-	-	-	0.40 - 0.60	2.00 - 3.00	0.10 - 0.60	-	-	-	0.50
COPR-TRODE®	98.0	-	1.00	0.50	-	0.50	-	-	0.15	0.01	0.02	0.50
SIL-TRODE®	balance	1.00	1.00	1.50	0.50	2.80 - 4.00	-	-	-	0.01	0.02	0.50



**AMPCO METAL WELDING PRODUCTS**

	Covered Electrodes			36" Bare Rod					Spooled Wire			
	INCH	1/8	5/32	1/16	3/32	1/8	5/32	3/16	.035	.045	1/16	3/32
	MM	3.2	4.0	1.6	2.4	3.2	4.0	4.8	0.9	1.2	1.6	2.4
AMPCO-TRODE® 7					*	*					*	*
AMPCO-TRODE® 10		*	*	*	*	*	*	*	*	*	*	*
AMPCO-TRODE® 40		*	*	*	*	*	*	*	*	*	*	*
AMPCO-TRODE® 46		*	*	*	*	*	*	*	*	*	*	*
AMPCO-TRODE® 150					*	*					*	*
AMPCO-TRODE® 160		*	*									
AMPCO-CORE® 200										*	*	
AMPCO-CORE® 250										*	*	
AMPCO-CORE® 300										*	*	
AMPCO-TRODE® 940				*		*				*	*	
COPR-TRODE®				*		*				*	*	
SIL-TRODE®				*	*	*			*	*		

For all 36" (914 mm) bare rod stock listed above, we recommend deposit with the GTAW process only.



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