

BRAZING ALLOYS



LOW FUMING BRONZE ALLOY

AWS A5.27-85 Class RBCuZn-C,
 AWS A5.8-89 Class RBCuZn-C
 †ASME SFA5.27 Class RBCuZn-C,
 †ASME SFA5.8 Class RBCuZn-C
 †QQ-R-571C, MIL-R-19631B
 Type RcuZn-C

FLUX COATED - BRAZING RODS

1 LB CONTAINER		10 LB CONTAINER		
SIZE	PART No.	PRICE	PART No.	PRICE
1/16	LFBFC116-1	\$8.95	LFBFC116-10	\$79.50
3/32	LFBFC332-1	\$8.95	LFBFC332-10	\$79.50
1/8	LFBFC18-1	\$8.95	LFBFC18-10	\$79.50
5/32	-	-	-	-

BARE - BRAZING RODS

1 LB CONTAINER		10 LB CONTAINER		
SIZE	PART No.	PRICE	PART No.	PRICE
1/16	LFB116-1	\$7.95	LFB116-10	\$69.50
3/32	LFB332-1	\$7.95	LFB332-10	\$69.50
1/8	LFB18-1	\$7.95	LFB18-10	\$69.50
5/32	-	-	-	-

DESCRIPTION AND APPLICATIONS

Washington Alloy Low Fuming Bronze is a general-purpose oxyacetylene brazing rod used for steel, copper alloys, cast iron, nickel alloys and stainless steel. A balanced chemical analysis of copper and zinc as well as alloying elements of tin, iron, manganese and silicon produce weld deposits with excellent mechanical properties. High strength, ductile and sound weld deposits are easily attained simply by applying a neutral or slightly oxidizing flame. The high silicon content of Washington Alloy Low Fuming Bronze keeps fumes to a minimum. Preheating is required for some applications and bronze brazing flux is required.

FILLER METAL CHEMISTRY (%)

*Cu	56.00-60.00
Mn	0.01-0.50
Sn	0.80-1.10
Pb	0.05 max.
Fe	0.25-1.20
Si	0.04-0.15
Zn	Balance
Al	0.01 max.

*Includes Silver (Ag)

MECHANICAL PROPERTIES OF WELD METAL

Tensile strength (psi)	56,000 min.
Brinell hardness	80-110
Liquidus	1630°F
Solidus	1590°F

STEEL RODS FOR GAS WELDING

USA RG45 AWS A5.2 Class RG45

1 LB CONTAINER			50 LB CONTAINER		
SIZE	PART No.	PRICE	PART No.	PRICE	
1/16	RG45116-1	\$2.50	RG45116-50	\$82.50	
3/32	RG45332-1	\$2.50	RG45332-50	\$82.50	
1/8	RG4518-1	\$2.50	RG4518-50	\$82.50	
5/32	RG45532-1	\$2.50	RG45532-50	\$82.50	

DESCRIPTION

USA RG45 is a copper coated gas welding rod that is used for welding ordinary low carbon steel up to 1/4" thick. It is recommended where ductility and machinability are most important. USA RG45 produces high quality welds which are ductile and free of porosity. This rod is excellent for steel sheets, plates, pipes, castings and structural shapes. No flux required.

TYPICAL CHEMICAL ANALYSIS (%)

C	0.060 max.
Mn	0.170 max.
Si	0.030 max.
P	0.025 max.
S	0.035 max.

TYPICAL MECHANICAL PROPERTIES OF WELD METAL (as welded)

Ultimate tensile strength (psi)	52,000
Elongation in 2" (%)	22

USA RG45 meets the requirements of the following:

- AWS A5.2-45T Class RG45
- MIL-R908 Amend.2 Class C
- MIL-R5632 Class 1
- Available in 36" straightened and cut lengths
- Standard packaging is 50 lb. cartons
- Available diameters: 1/16, 3/32, 1/8, 5/32

USA RG60 AWS A5.2 Class RG60

1 LB CONTAINER			50 LB CONTAINER		
SIZE	PART No.	PRICE	PART No.	PRICE	
1/16	RG60116-1	\$2.50	RG60116-50	\$84.50	
3/32	RG60332-1	\$2.50	RG60332-50	\$84.50	
1/8	RG6018-1	\$2.50	RG6018-50	\$84.50	
5/32	RG60532-1	\$2.50	RG60532-50	\$84.50	

DESCRIPTION

USA RG60 is used to produce high tensile strength quality welds on low carbon and low alloy steels such as sheets, plates, pipes of grades A and B analysis and structural shapes. It is recommended for critical welds that must respond to the same annealing and heat treatment as regular grades of cast steel. The high silicon and manganese composition removes impurities from the molten metal thereby eliminating the need for flux.

TYPICAL CHEMICAL ANALYSIS (%)

C	0.14-0.20
Mn	0.90-1.20
Si	0.20-0.35
P	0.025 max.
S	0.030 max.

TYPICAL MECHANICAL PROPERTIES OF WELD METAL (as welded)

Ultimate tensile strength (psi)	62,000-67,000
Elongation in 2" (%)	20-25

USA RG60 meets the requirements of the following:

- AWS A5.2-66
- ASTM A251-66 Class RG60
- MIL-R908 Amend.2 Class A & B
- MIL-R5632 Class 2
- Available in 36" straightened and cut lengths
- Standard packaging is 50 lb. cartons
- Available diameters: 1/16, 3/32, 1/8, 5/32

WELCO 17 BARE AND 17 FC

FLUX - SOLDERING, BRAZING, WELDING

A PREMIUM THIN FLOWING, HIGH STRENGTH, BRAZING ALLOY FOR ALL FERROUS AND NONFERROUS METALS (except the white metals).

Applications: Inasmuch as small deposits of this alloy yield very high strengths, it is ideal for maintenance repairs where close fitting joints are desirable, e.g. drill bits and drill bit extensions, tubular steel, furniture repairs, milling cutters, broaches, etc. In some applications, it can be used as a substitute for costlier silver brazing alloys. Procedure: The area to be brazed should be clean. Normally this alloy is employed for butt joining with little preparation other than cleaning and grinding of the surfaces. Heavier sections should be appropriately beveled. Use a neutral flame, holding the flame cone close to the joining area. Use WELCO 17 FLUX with bare WELCO 17 alloy (also, in some applications, when using WELCO 17 FC, it is advantageous to use additional WELCO 17 FLUX, particularly in "sweating" the alloy into rather large joint areas). Flux residue should be removed by wire brushing with hot water.

Features:

Tensile strength - Up to 95,000 psi
 Solidus - 1690°F Liquidus -1715°F
 Color - "Silvery" in contrast to bronze rod deposits

OUR BEST & STRONGEST BRAZING ALLOY

NICKEL SILVER BARE

1 LB CONTAINER			5 LB CONTAINER		
SIZE	PART No.	PRICE	PART No.	PRICE	
1/16	17116-1	\$18.95	17116-5	\$89.00	
3/32	17332-1	\$18.95	17332-5	\$89.00	
1/8	1718-1	\$18.95	1718-5	\$89.00	

NICKEL SILVER FLUX COATED

1 LB CONTAINER			5 LB CONTAINER		
SIZE	PART No.	PRICE	PART No.	PRICE	
1/16	17FC116-1	\$18.95	17FC116-5	\$89.00	
3/32	17FC332-1	\$18.95	17FC332-5	\$89.00	
1/8	17FC18-1	\$18.95	17FC18-5	\$89.00	