



SILICON BRONZE

Certifications:

AWS A5.7
ASME SFA 5.7

Applications

- Copper based filler metal that contains 3% Silicon and trace amounts of manganese, tin and zinc.
- Best known for welding plain or galvanized sheet metal
- Weld deposits demonstrate high strength, excellent corrosion resistance and good weld-ability.
- Used primarily for oxyacetylene welding of copper, copper-silicon and copper-zinc metals to themselves and/or steel.
- Can be used for surfacing areas that are subject to corrosion

Diameters & Packages

Dia.	2 lb	10 lb	25 lb	30 lb	33 lb	440 lb	500 lb	36" elect rode	36" tig rod
0.023"	✓	✓	✓						
0.025"	✓	✓							
0.030"	✓	✓			✓				
0.035"	✓	✓		✓	✓	✓	✓	✓	
0.045"				✓				✓	
1/16"				✓				✓	
3/32"									✓
1/8"								✓	
5/32"								✓	
1/4"								✓	

Typical Mechanical Properties:

Tensile Strength	Elongation
50,000 psi	65%

Technical Specifications

Typical Chemical Composition:

Chemical	Sn	Fe	Al	Zn
	1.0 max	0.50 max	0.01 max	1.0 max

Chemical	Mn	Si	Pb	Cu	Other
	1.5 max	2.8-4.0	0.02 max	Remainder*	0.50 max

* includes Ag - Silver

Recommended Weld Parameters:

SMAW (DCEP – Electrode+)		
Diameter	Volts	Amps
3/32"		50-110
1/8"		90-160
5/32"		130-180
3/16"		150-225
GMAW (DCEP – Electrode+)		
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 (DCEN – Electrode-)		
1/16"		70-120
3/32"		120-160
1/8"		170-230
5/32"		220-280
3/16"		280-330

- Preheating is not recommended. A high boric acid flux should be used before and while welding.
- Keep a small weld pool to allow for rapid solidification/reduce cracks