



## TinSilver Solders

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Our versatile TinSilver Solders are used throughout industry as a better-than-brazing method in many instances.

The important advantage of our Tin/Silver solders is the greater strength of the overall component after joining. Their lower working temperatures eliminate the weakening of the base metals caused by heat induced annealing.

Aufhauser TinSilver solders have an excellent affinity with all the ferrous and non-ferrous alloys (including stainless steel, nickel, copper, brass, etc.). TinSilver joints exceed the elongation requirements for sound, dissimilar metal joints. This makes them suitable for applications involving vibration. TinSilver alloys range in temperature from 425°F to 535°F.

TinSilver Solders offers these important advantages over silver brazing:

1. Material Costs - 3 times less.
2. Much lower temperature
3. Much faster production.
4. Faster post cleaning; minimum metallic discoloration.
5. No base metal distortion.
6. No annealing of the base metal
7. No oxide scale (because the heat is lower)
8. Cadmium-free - non-toxic.
9. Lead free
10. Preferred by The National Sanitation Foundation

TinSilver Solders have been used for many years to join refrigeration/air conditioning tubing. The alloy fabricate forms strong, leak proof joints. TinSilver connections are ideal for many HVAC applications.

### TinSilver 4

Composition	Tin 96%/Silver 4%
Solidus	425°F
Liquidus	430°F
Plastic range	5°F ( $\leq 1.5\%$ )
Joint Strength Copper sleeve joint (in tension)	15,000 PSI
Shear strength	11,000 PSI
Electrical Conductivity	17.1
Color	Bright Silver, non-oxidizing

### TinSilver 5

Composition	Tin 95%/Silver 5%
Solidus	430° F
Liquidus	535° F
Plastic range	105° F
Joint strength: copper sleeve joint (in tension)	15,000 PSI
Shear strength	11,000 PSI
Electrical conductivity	17.1
Color	Bright silver, non-oxidizing

*TinSilver 5 has a higher silver content than the TinSilver 4, effecting a plastic range of 105°F. Just above the melting point of 425° F, this alloy becomes somewhat fluid, but has a high surface tension useful in filling loosely-fitted couplings.*

**Flux** - Use soldering flux for all metals other than aluminum. Use aluminum soldering flux for aluminum Forms - 1/16", 3/32", 1/8" wire diameters. Solid wire, rosin core, solder paste w/flux, and preform rings.  
**Packaging** - 1, 5, and 20 lb. spools