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## CopSil Brazing Alloy

### ◆ INTRODUCTION

Aufhauser CopSil is a new tin/silicon brazing filler metal providing a more economical option to silver containing alloys. The addition of tin and silicon allows for a significantly lower melting temperature, thus eliminating the need for silver. The alloy is also an alternative to flux and lead-based solders. CopSil offers increased operator efficiency by producing a very visible silver-colored fillet joint; this enables the operator to quickly visually inspect his work. CopSil is very unique in that certain portions of the heated alloy will disperse through the joint first, to fill the capillary fully when the brazed joint is complete. Weld metal is very ductile, more so than the PhosCopper 0 alloys.

No flux is needed when brazing on copper. Aufhauser White or Black SilverFlux is recommended for brazing on brass or bronze.

### ◆ APPLICATIONS

- Making fillet joints on copper tubing and pipes.

### ◆ CHEMICAL COMPOSITION (proprietary)

<u>Silicon</u>	<u>Phosphorus</u>	<u>Tin</u>	<u>Copper</u>	<u>Others (total)</u>
.001-3.0	4.0-8.0	.10-8.0	Balance	0.15

### ◆ PHYSICAL and MECHANICAL PROPERTIES

Solidus:	1178°F (637°C)
Liquidus:	1240 °F (674 °C)
Braze Color:	Silver-gray

### ◆ SPECIFICATIONS MEET or EXCEED

- Aufhauser Internal

### ◆ STANDARD SIZES AND DIAMETERS

<u>Size</u>	<u>Cast</u>	<u>Helix</u>
3/32 or 5/64 or 1/16 x 36" rod	N/A	N/A

*Copper and its alloys require a relatively high heat input with shortened welding time. Higher preheat temperatures and faster welding rates than for steel are necessary.*