

Crown Sil Cop 5

Bare Rod for Torch Brazing (TB)

Silver-Phosphorus-Copper Alloy



5% Silver-Phosphorus-Copper Brazing Alloy for Copper, Brass & Bronze

Typical Applications

Crown Sil Cop 5 is used to join copper to copper without flux (the phosphorus in the rod acts as a fluxing agent). It can also join copper to brass and/or bronze or brass to brass and/or bronze using the **Crown #45 White Flux**. This alloy is an economical alternative to higher silver alloys (i.e. **Crown Sil Cop 15**). It is used where *limited* impact or vibration stresses are encountered (i.e. refrigeration components, air conditioning parts, electrical motors & hot water pipes) since it is more ductile than **Crown Sil Cop 0**. This alloy is extremely fluid when heated rapidly to its liquidus, however, with slower heating, **Crown Sil Cop 5** provides the ability to fill wider gaps. Therefore, it is ideal when narrow joint clearances cannot always be held. Best results are obtained with joint clearances of 0.002 inch – 0.006 inch.

Crown Sil Cop 5 should not be used on steel or other ferrous or nickel-based alloys or on copper-nickel alloys containing a nickel content in excess of 10% due to the formation of brittle compounds at the brazed joint. The corrosion resistance of this alloy is comparable to that of copper except when exposed to sulfur compounds and sulfur containing gas or oil, especially at elevated temperatures. The recommended maximum operating temperatures are 300°F (sustained service) and 400°F (intermittent service).

Crown Sil Cop 5 is the most versatile of the phos-copper alloys because of its high strength and good ductility at a moderate price.

Specifications

AWS A 5.8/A5.8M

BCuP-3

• Silver	4.80 – 5.20%
• Phosphorus	5.80 – 6.20%
• Copper	Balance
• Other Elements (total)	0.15 max.
• Liquidus	1495°F
• Solidus	1190°F
• Brazing Range	1325°F – 1500°F
• Electrical Conductivity (%IACS)	5.6%
• Joint Strength	Joint strength will generally surpass the strength of the base metals. Strength is a function of the base metals being joined, type of joint, design of joint, joint clearances and brazing procedures.

Procedure

Clean joint area thoroughly. Apply a liberal amount of **Crown #45 White Flux** on brass and/or bronze parts. Use a large tip. Heat broadly until the copper sweats or the flux liquefies. The heating of **Crown Sil Cop 5** & the base metal should be rapid through the melting range. Heat base metal above the flow temperature (1350°F) before applying the **Crown Sil Cop 5** to the joint area. Heat the joint area generally. Do not point the flame directly at the filler alloy. Apply a sufficient amount of alloy to fill the joint. **Crown Sil Cop 5** is very fluid at its liquidus temperature & will quickly fill long, narrow joints.

Sizes and Part Numbers

Diameter	Part Numbers	
	1 lb package	5 lb package
1/16 x 36"	LSCOP5/TL-BP	LSCOP5/TL
3/32 x 36"	LSCOP5/TN-BP	LSCOP5/TN
1/8 x .050 x 18"	LSCOP5/TI-BP	LSCOP5/TI
1/8 x 36"	LSCOP5/TO-BP	LSCOP5/TO



!!!! WARNING !!!!



WELDING FUMES AND GASES CAN BE DANGEROUS TO YOUR HEALTH.

BEFORE USING THIS PRODUCT THE WELDER (END-USER) MUST READ AND UNDERSTAND THE COMPLETE PRODUCT WARNING LABEL AND THE NEW 16 SECTION SAFETY DATA SHEET (SDS).

THE SAFETY DATA SHEET (SDS) WHICH OUTLINES THE POTENTIAL HEALTH HAZARDS AND SAFETY INFORMATION RELATED TO THIS PRODUCT CAN BE DOWNLOADED FROM THE SDS PORTION OF THIS WEBSITE. IT IS ALSO AVAILABLE FROM YOUR EMPLOYER AND WELDING SUPPLY DISTRIBUTOR.

DO NOT PROCEED WITH USE OF THIS PRODUCT UNTIL YOU READ AND UNDERSTAND THE SAFETY DATA SHEET (SDS) AND PRODUCT WARNING STATEMENT.

BE SURE TO CONSULT THE LATEST VERSION OF THE SDS.

SEE THE PRODUCT WARNING LABEL AND SDS FOR COMPLETE WARNING INFORMATION.

