

PhosCopper 5HP

◆ INTRODUCTION

Aufhauser PhoCopper 5HP is slightly more fluid than the PhosCopper 5 (BCuP-3) or the PhosCopper 15 (BCuP-5), and has a lower liquidus temperature. The higher phosphorous content delivers good liquidity. It is used extensively in the form of pre-placed rings in heat exchanger and tubing joints. Joint clearances of 0.002 to 0.005 are recommended.

◆ APPLICATIONS

- Brazing copper and copper alloys, as well as brass, bronze, silver, tungsten and molybdenum.

◆ CHEMICAL COMPOSITION

<u>Silver</u>	<u>Phosphorus</u>	<u>Copper</u>	<u>Total other</u>
5.0	6.75	Balance	.15

◆ PHYSICAL and MECHANICAL PROPERTIES

Melting Point:	1190 °F
Brazing Range:	1300-1500 °F (704-816 °C)
Density:	0.294 lb/cu.in.
Color:	Light Copper



◆ SPECIFICATIONS MEET or EXCEED

- AWS A5.8 BCuP-7
- ASME BCuP-7
- QQ-B-650 BCuP-7
- ISO 3677: B Cu 89P Ag 645-770

◆ STANDARD SIZES AND DIAMETERS

- Diameters: 1/16", 3/32", 1/8", 3/16", 1/4"
- Sizes: 18", 20", 36" cut lengths
- Forms: Flat, Square, Round

◆ PROPERTIES OF BRAZED JOINTS

Generally, the joint strength produced by PhosCopper 5HP will surpass the strengths 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. The recommended maximum operating temperatures for PhosCopper 5HP are 300 °F (continuous service) and 400 °F (short time service). Corrosion resistance is satisfactory except when the joint is in contact with sulfurous atmosphere (especially at elevated temperatures).

◆ ADDITIONAL INFORMATION

The phosphorus content of PhosCopper 5HP acts as a fluxing agent and no flux is necessary when brazing copper joints. However, when used with a copper alloy or one of the other brazeable metals, Aufhauser SilverFlux must be used to promote wetting, bonding, and flow throughout the joint. The flow point of PhosCopper 5HP is 1300 °F.