

# TW-5P

(AWS BCuP-3)

## Description:

- Copper-phosphorous (5% silver) brazing alloy for joining copper and its alloys. Self-fluxing on copper and excellent fluidity.

## Applications:

- Intermediate temperature brazing alloy suitable for copper, bronze and brass joints, capable of withstanding high pressures and vibrations.
- Used for manufacturing and repairing cooling coils, capacitors, vaporizers, heat exchangers, gas pipes, instrumentation controls, refrigeration units, electrical contacts, primus nozzles, etc. It has good corrosion resistance and better electrical conductivity.
- This alloy should not to be used on steel as it can produce brittle joints.

## Characteristics:

<b>Melting Range</b>	Solidus 643°C / Liquidus 813°C
<b>Working Temperature</b>	730 - 840°C
<b>Heating Method</b>	Torch, furnace, induction
<b>Tensile Strength</b>	25 kg/mm <sup>2</sup> (35,550 psi)
<b>Elongation in 2"</b>	5%
<b>Chemical Composition</b>	Cu 89%, P 6%, Ag 5%

## Procedure:

1. Clean brazing area removing rust or grease. Use torch with a natural flame.
2. Flux is not needed to join copper to copper. Heat the copper properly until it is a dark red, then add a drop of alloy making it flow.
3. Continue applying the alloy by heating the joint area until it flows completely throughout the joint by capillary action.
4. For joining copper to bronze or brass, cover the area well with flux and heat with the torch until the flux liquefies.
5. Apply the alloy. It is very important that the joint is properly closed to ensure leak-free joints, particularly in overlapping joints of copper pipes.
6. Remove flux residue once the brazed joint or part has cooled.

## Available forms:

<b>Round rods (Ø)</b>	1/16" (1.6mm), 3/32"(2.4mm), 1/8" (3.2mm)
<b>Foil</b>	0.05" x 1/8" (1.3x3.2mm)
<b>Lengths</b>	18" (457mm), 20" (508mm) y 500mm

