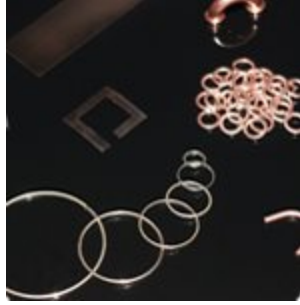


Bellman-Melcor LLC
 7575 West 183rd Street
 Tinley Park, Illinois 60477
Phone: 1-800-367-6024 • **Fax:** 1.888.BRAZE-IT-272.9348
Email: sales@bellmanmelcor.com • **Website:** www.bellmanmelcor.com



Item # BrazeIt-5, Copper Phosphorous Alloys

This phos-copper brazing alloy delivers moderate liquidity and improved gap filling compared to BrazeIt #0. The 5% silver content provides good economy when compared with BrazeIt #15.

BrazeIt 5 is used for the brazing of copper and copper alloys, brass, and bronze. It can also be used on silver, tungsten, and molybdenum. It is primarily used for the joining of copper-to-copper. BrazeIt 5 should not be used when brazing ferrous metals or copper alloys containing more than 10% nickel because of phosphorus embrittlement due to reaction with iron or nickel. BrazeIt 5 has good flow and wetting properties on copper, brass, and bronze. Its melting characteristics are such that on the low end of its brazing temperature range it has "sluggish" flow characteristics which enable it to fill gaps better, making it ideal for loose-fitting joints. On the other hand, when brazing at the high end of its brazing temperature range, it is very fluid, making ideal for tight-fitting joints requiring deep penetration.

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Nominal Composition

Silver (Ag)	5.00 ± 0.20%
Copper (Cu)	89 (Balance)
Phosphorus (P)	6.00 ± 0.20%
Total Other Elements	0.15% Max.

Specifications

Melting Pt.	1190 °F 643 °C
Flow Pt.	1495 °F 813 °C
MBT ¹	1500
AWS A5.8	BCuP-3
ASME	BCuP-3
QQ-B-650	BCuP-3
Preform Options	Brazing Discs Brazing Rings Brazing Shims Brazing Washers Custom Designs Cut-Offs Edgewounds
Resale Options ²	Brazing Rods Brazing Strip Brazing wire Paste
Pricing & availability	Our advanced manufacturing processes are second to none. This results in superior quality that is still provided at an industry competitive prices. We offer many items from stock including BrazeIt #0 brazing rings and brazing rod items.
Approx. Wire Length (BCuP/lb.) (BAg/Tr.oz)	1120 in @ 0.062 diameter 4500 in @ 0.031 diameter 490 in @ 0.093 diameter

¹ Recommended Brazing Temperature² Brazing Wire - Auto Feed Spools

Physical Constants

Solidus	1190 °F 643 °C
Liquidus	1495 °F 813 °C
Brazing Range	1325 to 1500 °F 718 to 816 °C
Specific Gravity	8.13
Density	4.29 T.oz./cu.in. 0.294 lb./cu.in
Electrical Conductivity	9.6 % IACS
Electrical Resistivity	18.1 Micro ohm-cm
Color	Light Copper

Properties of Brazed Joints

Generally, the joint strength using Brazeit 5 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 clearance and brazing procedures. The recommended maximum operating temperature for Brazeit 5 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).

Applications

The phosphorus content of Brazeit 5 acts as a fluxing agent and no flux is necessary when brazing copper-to-copper joints. However, when used with a copper alloy or one of the other brazeable metals, a brazing flux must be used to promote wetting, bonding, and flow throughout the joint. The flow point of Brazeit 5 is 1325 °F (718 °C).

Used when gap clearance range is .003 to .006". Ideal for larger copper pipe sizes.

Safety Information

The operation and maintenance of brazing equipment or facility should conform to the provision of American National Standard (ANSI) Z49.1, "Safety in Welding and Cutting." For more complete information, refer to the Material Safety Data Sheet for Brazeit 5.

Available Forms

Standard forms of Brazeit 5 are brazing wire and brazing preforms.