



Al-Cop Braze TM- Aluminum to Copper Brazing Rods

Applications & Features

A stable mixture of aluminum-zinc filler metal and a non-corrosive cesium-based flux for joining all brazable grades of aluminum and copper.

Al-Cop Braze has a low melting point and narrow melt range which makes it suitable for brazing aluminum alloys. In addition, the high zinc content relative to other aluminum filler metals provides increased wettability. Solution temperature during heat treating must be below the solidus of the braze alloy in order to ensure integrity of the joint is maintained.

Is effective with any of these heat sources :

- Oxy-acetylene torch
- Natural gas torch
- MAPP Gas
- Induction

Post-Braze Cleaning

The cesium-based flux and its residues are non-hygroscopic and non-corrosive, therefore post-braze cleaning operations are typically not required. If cleaning is desired, a 50/50 mixture of nitric acid and distilled water can be used to remove residue. The part can be agitated while submerged in the solution if need be.

Properties of Brazed Joints

The properties of the brazed joint are dependent upon numerous factors including base metal properties, joint design, metallurgical interaction between the base metal and the filler metal. Joint clearances of 0.003-0.006" (0.076-0.152 mm) per side ideal for achieving the highest joint strength in aluminum brazed assemblies. The increased zinc-content in Al-Cop Braze relative to other low temperature brazing/soldering alloys typically provides higher strength characteristics under proper joint design conditions.

Properties

Composition	Range
Zi (Zinc) :	Balance
Al (Aluminum):	22.00% ± 1.0
Other Elements, Total	0.15% Max
Technical Data	
Solidus:	826°F (441°C)
Liquidus:	905°F (471°C)
Recommended Brazing Temperature	950-1000°F (510-537°C)
Density (Lbs/in ³)	0.19
Electrical Conductivity (%IACS)	N/A
Electrical Resistivity (Microhm-cm)	N/A

Warranty & Storage

SolderWeld warrants Al-Cop Braze flux paste for a period of 90 days from the date of shipment if stored in the original unopened container. Ideal storage conditions include a temperature range of 65-75°F (18-24°C) and a clean, dry environment. Reconstitution of the paste may be required for homogeneity if separation has occurred. It should be noted that typically the product can still be used well beyond the 90-day period mentioned above, provided the customer is not experiencing any issues.

Flux-containing wire, when stored under the proper conditions, will remain fully functional for a period of no more than 2 years.

Safety Information

The operation and maintenance of brazing equipment or facility should conform to the provisions of American National Standard (ANSI) Z49.1, "Safety in Welding and Cutting."

Disclaimer

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