



KappFreeA™

Description

KappFreeA™ Tin-Copper-Silver is a Lead-free, Cadmium-free formulation designed specifically to replace KappLead™ (Tin-Lead) solders in standard Stainless Steel, Copper, and Brass plumbing applications, without requiring additional liquid or paste flux. When the solder is heated, the internal flux is released to remove the oxide layer necessary for forming a strong bond. **KappFreeA™** contains less Silver and is less expensive than KappZapp™ solders, yet produces joints with good tolerance to vibration and stress with tensile strength to 10,000 psi on Copper.



This product complies with NSF/ANSI Standard 372: Drinking Water System Components – Lead Content. Product also Certified to NSF/ANSI 61, Annex G and conforms with Lead content requirements for “Lead-free” plumbing as defined by California, Vermont, Maryland, and Louisiana state laws and the U.S. Safe Drinking Water Act in effect as of January 4, 2014. Weighted average lead content < 0.25%; Solder and flux lead content < 0.20%. This alloy complies with the European RoHS and REACH directives. No lead, cadmium or mercury used in production.

Benefits & Features

KappFreeA™ has been designed to accomplish three important Lead/Cadmium-free objectives:

1. Produce a cost-effective Lead/Cadmium-free composition to address environmental and health concerns – **meet ASTM and NSF Food Grade and Potable Water Standards**
2. Provide superior strength and corrosion resistance to KappLead™ (Tin-Lead) solders
3. Allow easy one-step application at low temperatures with any heat source

Applications

- Excellent choice when it is inconvenient or difficult to manage the application of solder and flux for plumbing as well as Copper to Copper and Copper to Brass applications
- Simple and easy to use in both installation and repair of Copper and Brass plumbing installations
- If extra flux is necessary, paired with [Kapp Comet™ Flux](#)

Properties

Composition	
Sn (Tin):	95.5%
Cu (Copper):	4.0%
Ag (Silver):	0.5%
Technical Data	
Melting Range:	440-500°F (226-260°C)
Tensile Strength (Copper):	10,000 psi
Tensile Strength (Stainless Steel):	18,000 psi
Shear Strength:	5,000 psi
Elongation:	48%
Electrical Conductivity (%TACS):	24.9%
Matching Kapp Flux:	Comet™ Flux

Product Variants

***Available in standard forms:** 1/32” (0.031”) (0.794mm), 1/16” (0.063”) (1.588mm), 1/8” (0.125”) (3.175mm). Custom alloys and forms are our specialty. Call a Kapp representative to discuss what size and diameter are right for you.

Matching Kapp Comet™ Flux Kapp Comet Flux™, 350-500°F (176-260°C), may be required on some highly polished Chromium and Nickel Stainless Steel Alloys. **It is very unlikely you will need Comet Flux™ when using KappFreeA™ Acid-cored solder on Copper or Brass.**