



KappTecZ™

Description

KappTecZ™ Cadmium-Zinc-Silver solder is a high temperature, high strength solder that may be used on most metals, but works extremely well on Aluminum, Copper, and Stainless Steel. It has a high tolerance to vibration and stress, and good elongation for use on dissimilar metals. Above its liquidus of 600°F (316°C), this solder is extremely fluid and will penetrate the closest joints. **KappTecZ™** is used with a flux appropriate for the base metal, and its performance in application is similar to the more expensive Silver brazing alloys. The joints have good corrosion resistance, high electrical properties, and high shear and tensile strengths.

Applications

KappTecZ™ is a general purpose Silver alloy solder is used for Stainless Steel and non-ferrous joining where high strength is required at a comparatively low temperature. **KappTecZ™** will solder all solderable metals including Aluminum, as well as Aluminum to Copper. It is often used to join Stainless Steel to Copper and Aluminum. **NOTE: Cadmium is a health hazard. See SDS for precautions and protections. Cadmium solders should NOT be used for food or potable water applications.** Please see KappFree™ and/or KappZapp™ for Copper and Stainless Steel and/or KappAloy™ for Aluminum Food Safe and Potable Water Applications.

Properties

The following chart contains typical physical properties for **KappTecZ™** solder joints. *Strength values are for an average joint on Copper-to-Copper, and are general guidelines when selecting solder for a particular application. Many factors, such as materials, temperature, and method of application determine the end result. Call Kapp Engineering Assistance to discuss your specific needs. We recommend testing appropriate alloys in your specific application to ensure suitability. Samples of Kapp alloys are always available upon request.

Composition	
Cadmium (Cd):	78%
Zinc (Zn):	17%
Silver (Ag):	5%
Technical Data	
Melting Range:	480-600°F (249-316°C)
Electrical Conductivity:	20.6 (% IACS)
Shear Strength (Copper):	12,000 psi @ 72°F (22°C)
Shear Strength (1020 Steel):	13,000 psi @ 72°F (22°C)
Tensile Strength:	Up to 25,000 psi
Specific Gravity:	8.55
Electrical Resistivity:	8.4%
Cd = Cadmium, Zn = Zinc, Ag = Silver	

*Note: Shear strengths based on double lap joints, Tensile strengths depend on base metals, soldering methods and type of joint.

Product Variants

*Available in standard forms: 1/32" (0.031") (0.8mm), 1/16" (0.063") (1.6mm), 1/8" (0.125") (3.2mm). Custom alloys and forms are our specialty. Call Kapp Alloy to discuss what size and diameter are right for you.

Recommended Flux

- [Kapp CopperBond™ Flux](#) - for metals other than Aluminum
- [Kapp Lunar™ Flux](#) - for soldering to Aluminum