



KappAloy9™

Description

KappAloy9™ Tin-Zinc solder is the standard for soldering Aluminum-to-Aluminum, Aluminum-to-Copper, and Aluminum-to-Brass. It is a soft, lower melting point Tin-Zinc solder eutectic at 390°F (199°C) offering good corrosion resistance and tensile strength. **KappAloy9™** is designed to minimize the heat required while producing a consistently strong bond and retaining the physical properties of the dissimilar parts being joined. Its low melting point also minimizes the potential for heat damage to adjacent electrical/electronic components.

Applications

- Aluminum wire-to-Copper busses or contacts / Copper wire-to-Aluminum busses or contacts
- Join electrical/electronic wires and Aluminum fittings, heating panels, high voltage components, and sound equipment
- Soldering thin Aluminum sheets, tabs, or wires to Aluminum or Copper connectors or wires
- Soldering Aluminum in close proximity to heat sensitive material or components
- Used extensively in oven soldering and other automated Aluminum soldering systems
- Paired with Kapp Golden™ Flux

Properties

Composition		
Sn (Tin):	91%	
Zn (Zinc):	9%	
Technical Data		
Comments		
Density:	7.27 g/cc (0.263 lb/in ³)	
Hardness, Brinell:	21.5 @ Load 4.00 kg (21.5 @ Load 8.82 lb)	2mm ball
Tensile Strength, Ultimate:	7930 psi (54.7 MPa)	
Elongation at Break:	32.50%	
Electrical Resistivity:	0.0000110 ohm-cm	
Heat of Fusion:	71.2 J/g (30.6 BTU/lb)	
Specific Heat Capacity:	0.239 J/g-°C (0.272 J/g-°C); [0.0571 BTU/lb-°F (0.0650 BTU/lb-°F)]	Solid (Liquid)
Thermal Conductivity:	61.0 W/m-K @Temperature 85.0 °C (423 BTU-in/hr-ft ² -°F @Temperature 185 °F)	
Melting Range:	Eutectic @ 199°C (390°F)	Eutectic

Product Variants

*Available in standard forms: 1/32" (0.031") (0.8mm), 1/16" (0.063") (1.6mm), 1/8" (0.125") (3.2mm). Not available with a rosin or acid core. Custom sizes and shapes are available. Call Kapp to discuss what size and diameter are right for you.

Matching Kapp Golden™ Flux

Kapp Golden™ Flux has been designed specifically for soldering Aluminum-to-Aluminum and Copper. It is used on Aluminum-to-Aluminum or Aluminum-to-Copper wire pigtail splices, and for Aluminum-to-Copper, Brass or plated terminals and hot dip coating of Aluminum cable connectors to provide a low resistance contact surface. Residue is electrically conductive and slightly corrosive. Any flux residue should be removed with warm water or alcohol and a clean rag. **Golden flux will char at temperatures above 550°F. DO NOT OVERHEAT FLUX.**