



PO Box 1188, 1 Klein Street, Oil City, PA 16301-0688
 Telephone: 800-327-6533 Fax: 814-676-5565
 Website: www.kappalloy.com, email: jack@kappalloy.com

KappAloy20™

Description

KappAloy20™ Tin-Zinc spray wire combines the advantages of the low melting temperature of Tin, with the corrosion resistance of Zinc. This solder displays higher tensile strength and temperature tolerances compared to KappAloy9™ and KappAloy15™.

Applications

KappAloy20™ is used extensively in spray wire form to coat the ends of capacitors and other electronic parts to provide a hermetic seal, EMF/EMI protection, and corrosion resistance. With the alloy's properties of Tin, the coatings are solderable. As with Zinc, the coating has substantial oxidation resistance.

Properties

Composition:	
Sn (Tin):	80%
Zn (Zinc):	20%
Coating Physical Properties:	
Wire Size:	2 mm
Deposit Efficiency:	45-85% ¹
Melting Point:	518°F (270°C)
Bond Strength:	2850 psi (19.7 MPa) blasted surface
Coating Texture:	Variable ²
Hardness:	R15T 0-6
Coating Density:	6.7 gm/cc ³
Coating Weight:	0.035 lbs/ft ² /mil
Shrink:	0.001 in/in (cm/cm)
Coefficient of Expansion:	22.2 micro-in/in/°F
Spraying:	
Spray Rate:	45 lbs/hr/100 Amps = (20.4 kg/hr/100 amps)
Coverage (wire consumption):	0.9 oz/ft ² /0.001" (1.10 kg/m ² /100 microns)
Spray Pattern ³ (approximate 8" standoff):	Cross Nozzle/Positioner - 1 1/4" (3.2 cm) vertical height x 2" (5 cm) width Slot Nozzle/Positioner - 2 1/4" (5.7 cm)
Length of wire per lb:	65 ft (2 mm)
Density:	0.26256 lbs/in ³

¹ Depends on air pressure, standoff, nozzle cap, and target size.

² 6" standoff, 40 psi - 8830, depends on air pressure - fine with high psi, average with medium psi, and rough with low psi.

³ Higher air pressures, smaller wire (1/16), and lower amperage with red nozzle cap gives smallest diameter

Product Variants

***Available in standard spray wire forms:** 1/8" (0.125") (3.2mm), 0.098" (2.5mm), 0.079" (2mm), 0.062" (1.6mm). Custom alloys and forms are our specialty. Call a Kapp representative to discuss what size and diameter are right for you.