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# KappZapp3.5R™

### **Description**

**KappZapp3.5R™** Tin-Silver rosin-core solder is a convenient NSF Certified Lead-Free one-step solder that produces strong and ductile joints for electrical/electronic Copper and Stainless Steel applications. The center of the solder contains a natural rosin flux which is released when the solder is heated, eliminating the need for additional flux. Flux residue is easily removed with a rag and warm water or alcohol, or by flushing with warm water. The resulting joints have high tolerance to vibration and stress, with tensile strengths to 14,000 psi on Copper and 25,000 psi on Stainless Steel.



NSF International certifies that 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.

#### **Applications**

- Copper wires to Copper, Brass, and/or Stainless Steel tabs
- Sensitive circuit boards
- Thin Copper or Stainless Steel wires
- Instruments
- Paired with Kapp Comet<sup>™</sup> Flux when additional flux is necessary

## **Properties**

| _ i roperties                       |                          |
|-------------------------------------|--------------------------|
| Composition                         |                          |
| Sn (Tin):                           | 96.5%                    |
| Ag (Silver):                        | 3.5%                     |
|                                     |                          |
| Technical Data                      |                          |
| Melting Range:                      | Eutectic @ 430°F (221°C) |
| Tensile Strength (Copper):          | 14,000 psi               |
| Tensile Strength (Stainless Steel): | 25,000 psi               |
| Shear Strength:                     | 11,600 psi               |
| Elongation:                         | 48%                      |
| Electrical Conductivity:            | 16.4%                    |
| Sn=Tin, Ag=Silver                   |                          |

#### **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.

# Matching Kapp Comet™ Flux

For most alloys and projects, no additional flux is required when working with KappZapp3.5R™ rosin-cored solder. Some highly polished Stainless Steel alloys contain more Chromium and Nickel. These parts may require extra effort to remove the oxide layer by sanding, scratching with a Stainless Steel brush or emory paper, AND by the addition of liquid Comet™ Flux.