

GOLD BONDING RIBBON

TECHNICAL DATASHEET

COINING's Gold Bonding Ribbon is typically utilized in microwave/RF and high-power applications. Our in-house casting, drawing, rolling, annealing and A2LA-accredited analytical method capabilities ensure we deliver homogeneous, high-purity ribbon with ultra-clean surfaces and smooth finish. We work with our customers to supply a custom solution where the technical parameters like tensile and elongation are specific to their requirements.

Why Gold Bonding Ribbon?

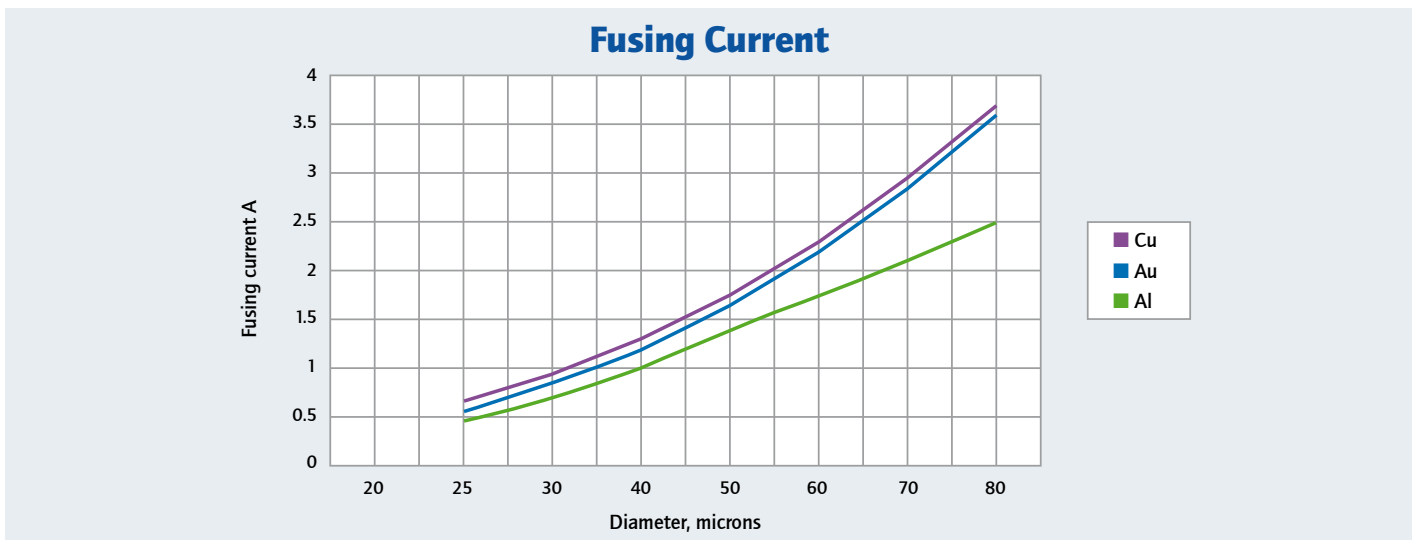
Gold Bonding Ribbon wire is used in a wide range of applications ranging from high pin-count, ultra-fine pitch microelectronic devices to high-power discrete components.

Au is the preferred choice of bonding material when

- the contact material is not compatible with Aluminum (Al) and/or Copper (Cu)
- the contact area is limited
- the device will be subject to high temperature or high humidity environments.

The Advantages of Gold Bonding Ribbon:

- Extreme bond reliability
- A wide processing window
- Low-impact ball and wedge bonding
- Superior looping performance
- High tensile test performance
- Excellent corrosion resistance
- Higher fusing current than standard Al bond wire.



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| Material Specification | |
|----------------------------------|-------------------------------------|
| Au | 99.99% min. |
| Be | 3 - 10 ppm |
| Impurities | Cu, Ag < 30 ppm; Fe, Mg < 20 ppm |
| Total impurities all elements | <100 ppm max |

| Physical Properties | |
|----------------------------------|-------------------------|
| Density: | 19.34 g/cm ³ |
| Melting Point: | 1063°C |
| Electrical Resistivity: (@20°C) | 2.3 μΩ-cm |
| Electrical Conductivity: (@20°C) | 75% (IACS) |
| Thermal Conductivity: (@20°C) | 315 W/(m-K) |
| Fusing Current (10 mm x 25 μm) | 0.52 A |

Gold Ribbon Mechanical Properties*

| Temper | Width (mils) | Thickness (mils) | Tensile Strength (gms) | Elongation (%) | Tolerance (%)** | |
|-----------------|--------------|------------------|------------------------|----------------|-----------------|-----------|
| | | | | | Width | Thickness |
| Hard | 2 - 10 | 0.25 - 2 | 12 - 600 | 0.5 - 3 | 5 - 3 | 20 - 10 |
| | 10 - 25 | 0.5 - 3 | 80 - 1500 | 0.5 - 4 | 5 - 4 | 20 - 10 |
| | 25 - 100 | 0.5 - 3 | 100 min | 1 - 6 | 5 | 20 - 10 |
| Stress Relieved | 2 - 10 | 0.25 - 2 | 10 - 500 | 1 - 4 | 5 - 3 | 20 - 10 |
| | 10 - 25 | 0.5 - 3 | 75 - 1000 | 1 - 5 | 5 - 4 | 20 - 10 |
| | 25 - 100 | 0.5 - 3 | 80 min | 1 - 7 | 5 | 20 - 10 |
| Annealed | 2 - 10 | 0.25 - 2 | 7 - 300 | 4 - 30 | 5 - 3 | 20 - 10 |
| | 10 - 25 | 0.5 - 3 | 50 - 700 | 8 - 50 | 5 - 4 | 20 - 10 |
| | 25 - 100 | 0.5 - 3 | 50 min | 1 - 7 | 5 | 20 - 10 |

* Typical specifications. **Lowest width/thickness dimension has the highest tolerance (%)

Contact Us

Ask An Engineer a technical question, by simply scanning the QR code and drop us a line.



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