

## Advanced Materials

### TC8401

#### Co-Fired Silver/ Palladium Conductor

**Description:**

TC8401 is a fritted 6Ag/1Pd conductor, which exhibits excellent bonding properties for heavy aluminum wire. TC8401 is lead and cadmium free.

TC8401 was specifically developed for use as a co-firing conductor on Clad Heratape® CT 800.

● **Key Benefits:**

- Excellent aluminum wire bond properties
- Compatible with Heratape® CT 800
- Lead, Cadmium and Nickel free
- Excellent soldeability

● **Typical Properties:**

**Resistivity:**

≤ 18 milliohms per square at 12 microns fired film thickness

**Viscosity:**

250-350 kcps, Brookfield HBT, #14 spindle @ 10 rpm, 25°C

**Solids:**

79 ± 1.0%

**Coverage:**

100cm<sup>2</sup>/gm at 12 microns fired film thickness

**Wire Bond Adhesion:**

300 μm wire, Orthodyne M360B bonder  
loop length > 8 mm and loop height > 3 mm

Al-H11 Wire (Heraeus)	Initial 400 gms
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● **Recommended Processing Guidelines:**

**Printing:**

200 - 325 mesh stainless steel screen  
Total screen thickness = 50 –110 microns  
Allow paste to level at room temperature for 5–10 minutes.  
Print Speed: < 10 cm/s (< 4 in/s)

**Line Resolution:**

≥ 125 microns (≥ 5 mils)

**Drying:**

Dry at 80°C for 10 to 20 minutes

**Firing:**

See HL2000 firing profiles

**Fired Film Thickness:**

10.5 – 15.5 microns

**Thinner:**

RV-372 (Terpineol)

**Warranty:**

Material guaranteed to meet specifications for 6 months from date of shipment.

**Storage:**

Store in a dry location at 5-25°C.  
DO NOT REFRIGERATE.  
Allow paste to come to room temperature before opening the jar to avoid condensation.  
Spatulate well before using.

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The descriptions and engineering data shown here have been compiled by Heraeus using commonly-accepted procedures, in conjunction with modern testing equipment, and have been compiled as according to the latest factual knowledge in our possession. The information was up-to date on the date this document was printed (latest versions can always be supplied upon request). Although the data is considered accurate, we cannot guarantee accuracy, the results obtained from its use, or any patent infringement resulting from its use (unless this is contractually and explicitly agreed in writing, in advance). The data is supplied on the condition that the user shall conduct tests to determine materials suitability for a particular application.

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