

## Technical Data Sheet



**Product Type:** LTCC Materials

**Product Name:** TC2306



### Co-Firing Silver Conductor

#### Description

TC2306 is a pure Ag conductor with low resistivity and superior fine line print resolution. TC2306 provides excellent compatibility with low temperature co-fired ceramic (LTCC) during the co-firing process.

TC2306 is optimized for screen printing as a routing conductor. The material may readily be used to print fine line patterns.

#### Key Benefits

- Low resistivity provides low line loss at microwave frequencies
- Compatible with LTCC
- Prints fine line patterns
- Pb and Cd free
- REACH<sup>1</sup> and RoHS<sup>2</sup> compliant

#### Typical Properties

**Resistivity:**

≤ 2.5 mΩ/□ at 12.5 – 17 μm dried film thickness

**Viscosity:**

190 – 230 Kcps Brookfield HBT  
SC4 – 14 spindle, 6R utility cup at 10 rpm, 25 °C

**Solids:**

79.75 ± 1.0 %

#### Recommended Processing Guidelines

**Printing**

290 – 400 mesh stainless steel screen  
0.5 mil emulsion

**Drying**

Maximum temperature 80 °C for 10 minutes

**Firing**

870 – 880 °C peak temperature  
Ramp from burnout to firing peak: 5 °C/minute  
Dwell time at peak: up to 30 minutes  
Total cycle time up to 12 hours  
(Most easily achieved in a box oven).

**Dried Film Thickness:**

12.5 – 17 μm (printed with a 325 mesh screen)

**Line Resolution:**

≥ 100 μm (4 mils)

**Thinner:**

RV-507

**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 prior to opening.  
Spatulate well before using, as settling may occur during storage.

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Legend:

1) REACH compliant according to the latest \* Annex XIV to Regulation (EC) of the European Parliament and of the council on the Registration, Evaluation, Authorisation and Restriction of Chemicals ("REACH") by European Chemicals Agency and its subsequent amendments; the material does not contain any substance listed in Annex XIV.

2) RoHS compliant according to the latest \* Directives (European Union) of Restriction of Hazardous Substances ("RoHS") and its subsequent amendments (including the exceptions related to Pb)

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