TC2304HQ is a pure Ag conductor with low resistivity and superior fine line print resolution. TC2304HQ provides excellent compatibility with low temperature co-fired ceramic (LTCC) tape during the co-firing process.

TC2304HQ 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
- Minimal posting
- Prints fine line patterns – 75 µm
- REACH\(^1\) and ROHS\(^2\) compliant

**Typical Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Resistivity</strong></td>
<td>(\leq 2) mΩ/□ at 15 µm cofired in LTCC</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>400 – 600 Kcps Brookfield HBT</td>
</tr>
<tr>
<td></td>
<td>SC4 – 14 spindle, 6R utility cup at 10 rpm, 25 °C</td>
</tr>
<tr>
<td><strong>Solids</strong></td>
<td>82.5 ± 1.5 %</td>
</tr>
</tbody>
</table>

**Recommended Processing Guidelines**

**Printing:**
290 – 400 mesh stainless steel screen
Slow print speed (1.5 in/sec) for optimal fine line resolution

**Drying:**
80 °C for 10 to 20 minutes

**Firing:**
870 – 880 °C peak temperature
Dwell time of 30 minutes at peak
Total cycle time of up to 12 hours (Most easily achieved in a box oven).

**Fired Film Thickness:**
11 – 19 µm

**Line Resolution:**
75 µm printed (67 µm fired)

**Thinner:**
RV-507

**Warranty:**
Material guaranteed to meet specifications for 3 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.
Technical Data Sheet

Co-Firing Silver Conductor

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)