

## Technical Data Sheet

### THICK FILM MATERIALS

Product Type: Conductors

Product Name: TC 7601



Ag / Pt Conductor Paste for LTCC

#### Description

TC 7601 is a 99:1 Ag / Pt conductor which provides excellent compatibility with Heratape CT 700 Series and CT 800 Series during the co-firing process.

#### Key Benefits

- The material is optimized for top layer screen printing of conductor tracks
- It may readily be used to print fine line patterns
- After firing, the paste can easily be soldered and provides excellent adhesion
- Free of lead, nickel, cadmium and phthalate
- REACH<sup>3</sup> and RoHS<sup>4</sup> compliant

#### Processing

- 1) Spatulate well prior to processing.

When stored in a refrigerator allow paste to come to room temperature prior to opening, to avoid condensation.

- 2) Print through a 200 – 325 stainless steel screen.
- 3) Level at room temperature for 5 – 10 minutes.
- 4) Dry at max. 80 °C for 10 – 30 minutes.
- 5) Fire at 850 – 865 °C (peak) for up to 30 minutes, and with a total firing cycle time up to 12 hours (most often practicable in a box oven).

#### Thinner

HVS 507

#### Typical Properties (Paste)

Form	Pseudoplastic paste
Viscosity	65 – 85 Pas (25 °C, D = 50/s)
Solid	85.0 % ± 1.0 %
Shelf Life	12 months from date of shipment with correct storage (in a dry, cool (5 - 25 °C) and dark place with container tightly shut).

#### Typical Properties (Fired)<sup>1</sup>

Fired Film Thickness <sup>2</sup> (FFT)	10 – 15 µm
Resistivity <sup>2</sup>	≤ 4.5 mΩ /□ (FFT: 12 µm)
Line Definition	≥ 150 µm

#### Compatibility

Tapes	CT 700 Series CT 800 Series
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#### Legend:

1) Typical properties based on laboratory test methods. For optimum results all materials should be fired in a profiled furnace supplied with dried, hydrocarbon and other contaminant free air (PP-1)

2) Measured after printing on alumina 96% with a 200 mesh stainless steel screen; screen thickness and emulsion thickness combined was c. 100 µm, and the resultant printed track was 500 µm wide.

3) 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.

4) 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) All materials are free of Cd and Ni, if not stated differently.

\* See the data sheet issue date (DD/MM/YY) as reference of validity of latest edition which is available on request

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