Heraeus

Conductors

TC 7303

Ag Conductor Paste for LTCC

Description:
TC 7303 is a pure Ag conductor with low solid content. It provides excellent compatibility with Heratape CT 700 and CT 800 during the cofiring process.

TC 7303 is optimized for screen printing of conductor tracks.

The material may readily be used to print fine line patterns.

After firing, the paste can easily be soldered.

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 mesh 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℃ (peak) for up to 30 minutes, and with a total firing cycle time of up to 12 hours (is often most practicable in a box oven).

Thinner: HVS 507

Properties (Paste):

Viscosity:	40 – 65 Pas, (25℃, D = 75 s^{-1})
Solids:	80.0 % +/- 1.0 %
Shelf Life:	12 months with correct storage (5 – 25℃, in a cool, dry, dark place, and with the container tightly shut).

Properties (Fired) [1]:

Fired Film Thickness [2]:	8.5 – 14.0 µm
Resistivity [2]:	≤ 3.5 mΩ / □ (FFT = 12 µm)
Line Definition [3]:	≥ 150 µm

Compatibility:

Dielectric:	Heratape CT 700, CT 800 and TT 710

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

2 Measured after printing on Alumna with a 325 mesh steel screen; screen thickness and emulsion thickness combined was c. 75 µm, and the resultant printed track was 500 µm wide.

3 Measured on 13” x 13” prints with 325 mesh steel screen; screen thickness and emulsion thickness combined was c. 75 µm

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