

Conductors

C 2210



(LPA 508-063) Palladium Alloy Conductor Paste (DPIS*)

*DPIS = Development Product Information Sheet

Description:

C 2210 is a 0.8:1 Ag / Pd pre-alloyed conductor paste which exhibits a high density, high reliability and remarkable fine line resolution. C 2210 has an enriched Pd content to address increased demands by low sulfur fuel applications. Due its high densification during sintering the surface of this alloy is very smooth and greatly reduces risk of silver migration. It offers exceptional chemical and physical wear resistance in use as a track material for sliders. It provides a low cost alternative to gold in stringent fuel sensor application.

Processing:

1. Spatulate well prior to processing. When stored in a fridge: The paste should have acquired room temperature before being opened, 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 150°C for 10 – 20 minutes.
5. Fire at 850°C (peak) for 10 minutes, and with a total firing cycle time of c. 30 – 60 minutes.

Properties (Pastes):

Viscosity:	25 – 40 Pas (25°C, D = 100 s ⁻¹)
Printing Speed:	Up to 20 cm / s
Shelf Life:	6 months, with correct storage (5 to 25°C, in a cool, dry, dark place, and with the container tightly shut).

Properties (Fired)¹:

Fired Film Thickness ² : (FFT)	8.5 – 12.0 µm
Line Definition:	≥ 125 µm
Resistivity ² :	≤ 130 mΩ / □ (FFT: 12 µm)
Leach Resistance: (96Sn / 3.5Ag / 0.5Cu)	≥ 6 dips (255°C, 10s each)
(62Sn / 36Pb / 2Ag)	≥ 6 dips (235°C, 10s each)

Thinner: HVS 100

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 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.

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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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