

Technical Data Sheet



THICK FILM MATERIALS

Product Type: Conductors

Product Name: LPA 709 - 112



Platinum Conductor Paste for Tape / DPIS*

* Development Product Information Sheet

Description

LPA 709 -112 is a fritless Pt paste which fires to a catalytic, conductive and stable metallization. LPA 709 - 112 has a rheology suitable for screen printing.

Key Benefits

- Chemically resistant
- Fritless paste
- Co- and post-fireable on zirconia or alumina tape
- Excellent fine line resolution
- Free of lead, cadmium, nickel and phthalate
- REACH³ and ROHS⁴ compliant

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 325 mesh stainless steel screen. Total thickness: approx. 75 µm.
- 3) Level at room temperature for 10 minutes.
- 4) Dry at 150 °C for 10 – 20 minutes.
- 5) Fire at 1500 °C peak for 60 – 180 minutes.

Thinner

HVS 507

Typical Properties (Paste)

Form	Pseudoplastic paste
Viscosity	30 – 60 Pas (25 °C, D = 100/s)
Solids	87.0 % ± 2.0 %
Tape Substrate	Al ₂ O ₃ , ZrO ₂
Shelf Life	6 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)¹

Fired Film Thickness ² (FFT)	8 – 15 µm
Resistivity ²	≤ 20 mΩ/□ (FFT: 12 µm) (post-fired on Al ₂ O ₃ 96 %)
Line Definition	≥ 100 µm (width and space)

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Legend:

- 1) Typical property 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 with a 325 mesh stainless steel screen; screen thickness and emulsion thickness combined was c. 75 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)

* 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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