

Conductors

C 1075 SD (LPA 411-076)

REACH Compliant Silver Conductor Paste

Description

C 1075 SD (LPA 411-076) is a low cost, oxide-bond pure Ag conductor material. It offers cost savings over standard AgPd formulations, while maintaining the advantages of leach resistance and aged adhesion. C 1075 SD (LPA 411-076) is for use on dielectrics. Resulting films are dense and uniform.

Key Benefits

- Excellent solderability and leach resistance on Heraeus dielectrics
- Inner layer for multi-layer applications
- Compatible with HERAEUS resistors
- Good initial and aged adhesion
- Outstanding conductivity
- Free of cadmium and nickel
- 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 200 - 325 mesh stainless steel screen. Total thickness: 50 - 110 µm
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.

Thinner

HVS 100

Typical Properties (Pastes)

Form:	Thixotropic paste
Viscosity:	30 - 50 Pas (25°C, D = 100 s ⁻¹)
Solids:	81.5 % ± 1.0 %
Printing Speed:	Up to 20 cm / s
Coverage:	c. 80 cm ² / g (FFT: 12 µm)
Shelf Life:	6 months from date of shipment with correct storage (in a dry, cool (2 to 23 °C) and dark place with container tightly shut).

Typical Properties (Fired)¹

Fired Film Thickness ² : (FFT)	12.5 - 15.5 µm
Resistivity ² :	≤ 2.2 mΩ/□ (FFT: 12 µm)
Solderability: (62Sn / 36Pb / 2Ag)	Good ≥ 95% (235°C, 5s dip) (assessment acc. DIN 41850-2E)
Adhesion, Aged on IP9117S: (62Sn / 36Pb / 2Ag)	≥ 18 N (48 hrs, 150 °C)
Leach Resistance: (62Sn / 36Pb / 2Ag)	≥ 4 dips (235 °C, 10s each)

Compatibility

Dielectrics:	IP 9117 Series
Resistors:	R 8900 D Series

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- 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 200 mesh steel screen; thickness of screen and emulsion combined was c. 100 µm, and the resultant printed track was 500 µm wide.
- 3 REACH compliant according to the Commission Regulation (EU) No 143/2011 of 17 February 2011 amending Annex XIV to Regulation (EC) No 1907/2006 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 above mentioned product does not contain any substance listed in the Annex XIV.
- 4 RoHS compliant according to the Directives (European Union) No 2011/65/EC of Restriction of Hazardous Substances ("RoHS") and its subsequent amendments (including the exceptions No. 7.c. I of the EU Directive e.g. related to Pb)

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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