

Conductors

C 2040

Silver / Palladium Conductor Paste

Description:

C 2040 is a screen printable 4.0 : 1 Ag / Pd paste which is completely Ni-free. It is compatible with and solderable upon IP 9117 series.

Properties (Paste):

Viscosity:	30 – 50 Pas (25°C, D = 100 s ⁻¹)
Solids:	78.0 % +/- 1.5 %
Printing Speed:	Up to at least 20 cm / s
Coverage:	c. 80 cm ² / g (FFT: 12 µm)
Shelf Life:	12 months with correct storage (2 to 23°C, in a cool, dry, dark place and with the container tightly shut).

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 125 – 150°C for 10 – 15 minutes.
5. Fire at 850°C (peak) for 10 minutes, and with a total firing cycle time of c. 30 – 60 minutes.

Properties (Fired)*:

Fired Film Thickness **:	12.0 – 15.5 µm
Line Definition:	≥ 125 µm
Resistivity **:	≤ 40 mOhms / □ (FFT: 12 µm)
Solderability: (62Sn / 36Pb / 2Ag)	Excellent = ≥ 95% (235°C, 5s dip) (assessment acc. DIN 41850-2 E)
Aged Adhesion: (62Sn / 36Pb / 2Ag) (1 x 850°C, 48hrs. / 150°C)	≥ 18 N
Leach Resistance: (62Sn / 36Pb / 2Ag)	≥ 5 dips (235°C, 10s each)

* 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).

** Measured after printing with a 200 mesh steel screen; screen thickness and emulsion thickness combined was c. 100 µm, and the resultant rprinted track was 500 µm wide.

Thinner: HVS 100

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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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