

## Technical Data Sheet

### THICK FILM MATERIALS

Product Type: Conductors

Product Name: C6212



Solderable AuPdPt Conductor Paste for FLS

#### Description

C6212 is a lead-free, screen printable, solderable Gold / Palladium / Platinum conductor paste for FLS (fuel level sensor) applications.

C6212 is optimized in hardness and surface density. It shows excellent printability resulting in high line definition and smooth surface under various drying conditions.

#### Key Benefits

- Most suitable material for low sulfur fuel application because of absence of silver
- Very smooth fired surface which exhibits very durable mechanical resistance and chemically very resistant
- Solderable with customary solder alloys
- Free of lead, cadmium, nickel and phthalate

#### 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 screen. 0.03 – 0.04 mm Ø wire and 20 – 30 µm emulsion.
- 3) Level at room temperature for 10 minutes.
- 4) Dry at max. 150 °C for 8 – 10 minutes.
- 5) Fire at 850 °C (peak) for 10 minutes, and with a total firing cycle time of 30 – 60 minutes.

#### Thinner

HVS 252

#### Typical Properties (Pastes)

Form	Pseudoplastic paste
Viscosity	40 – 70 Pas (25 °C, D = 50/s)
Solids	86.0 % ± 1.0 %
Coverage	c. 65 cm <sup>2</sup> /g (at FFT: 10 µm)
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)<sup>1</sup>

Fired Film Thickness <sup>2</sup> (FFT)	7.5 – 11.5 µm
Line Definition <sup>2</sup>	≥ 125 µm
Resistivity <sup>2</sup>	≤ 85 mΩ/□ (at FFT: 10 µm)
Adhesion <sup>2</sup> -Sn62/Pb36/Ag2 -Sn96/Ag3.5/Cu0.5	1 x 850 °C, 16 h at RT ≥ 20 N ≥ 20 N
Leach Resistance -Sn62/Pb36/Ag2 -Sn96/Ag3.5/Cu0.5	2 x 850 °C + 500 °C ≥ 10 dips (235 °C, 10 s each) ≥ 10 dips (245 °C, 5 s each)

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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 steel screen; screen thickness and emulsion thickness combined was c. 75  $\mu\text{m}$ , and the result printed track was 500  $\mu\text{m}$  wide.

\* See the data sheet issue date (DD/MM/YY) as reference of validity of latest edition which is available on request

**Heraeus Electronics**  
Heraeus Deutschland GmbH & Co. KG  
Heraeusstraße 12 – 14  
63450 Hanau, Germany  
[www.heraeus-electronics.com](http://www.heraeus-electronics.com)

**Americas**  
Phone +1 610 825 6050  
[electronics.americas@heraeus.com](mailto:electronics.americas@heraeus.com)

**China**  
Phone +86 53 5815 9601  
[electronics.china@heraeus.com](mailto:electronics.china@heraeus.com)

**Asia Pacific**  
Phone +65 6571 7649  
[electronics.apac@heraeus.com](mailto:electronics.apac@heraeus.com)

**Europe, Middle East and Africa**  
Phone +49 6181 35 4370  
[electronics.emea@heraeus.com](mailto:electronics.emea@heraeus.com)