

PCC11970

Conductor

Description

PCC11970 is a Pb and Cd free palladium silver conductor composition designed for use in the manufacture of hybrid circuitry. PCC11970 employs a mixed oxide and glass bonding system that results in a dense, solderable fired film with high initial and aged adhesion.

Key Features

- Solderable fired films Excellent initial and aged adhesion



Typical Properties

|                 |                                                                                  |
|-----------------|----------------------------------------------------------------------------------|
| Viscosity       | 200 – 260 kcps, Brookfield HBT, SC4-14 spindle & 6R utility cup @ 10 rpm, 25°C   |
| Coverage        | 70-75 cm2 /gm<br>(calculated from 50 micron wet film)                            |
| Resistivity     | ≤ 25 milliohms per square at 25 microns fired film thickness                     |
| Solderability   | 62Sn/36Pb/2Ag, 230°C<br>0.08 in x 0.08 in pads<br>3 seconds dip<br>100% Coverage |
| Solder Leaching | Sn62/Pb36/Ag2, 230°C<br>10mil wide conductor trace<br>≤ 10% loss                 |

PCC11970

Conductor

Recommended Processing Guide

|                           |                                                                                                                                        |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Printing Parameters       | 200 - 325 mesh stainless steel screen<br>0.5 mil emulsion<br>Allow parts to level at room temperature for 1 – 3 minutes before drying. |
| Printing Speed            | ≤ 25 cm/sec. (10 in/sec)                                                                                                               |
| Drying Temperature        | 150°C for 5 - 10 minutes.                                                                                                              |
| Process Temperature (TDS) | 850°C peak temperature<br>Dwell time of 10 minutes at peak                                                                             |
| Film Thickness            | 9-15 microns                                                                                                                           |
| Line Definition           | ≥ 125 microns (5 mils)                                                                                                                 |
| Recommended Thinner       | Heraeus RV-372                                                                                                                         |

Americas

Phone +1 610 825 6050

electronics.americas@heraeus.com

Asia Pacific

Phone +65 6571 7649

electronics.apac@heraeus.com

China

Phone +86 53 5815 9601

electronics.china@heraeus.com

Europe, Middle East and Africa

Phone +49 6181 35 4370

electronics.emea@heraeus.com

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 particular application. The Heraeus logo and Heraeus, figurative mark are trademarks or registered trademarks of Heraeus Holding GmbH or its affiliates. All rights reserved.

## PCC11970

### Conductor

---

#### Warranty

Material guaranteed to meet specifications for 6 months from date of manufacturing with proper storage.

#### Storage

Store in a dry location at 5 – 25°C. DO NOT REFRIGERATE. Allow paste to come to room temperature prior to opening. Spatulate well before using, as settling may occur during storage.

#### Americas

Phone +1 610 825 6050

[electronics.americas@heraeus.com](mailto:electronics.americas@heraeus.com)

#### Asia Pacific

Phone +65 6571 7649

[electronics.apac@heraeus.com](mailto:electronics.apac@heraeus.com)

#### China

Phone +86 53 5815 9601

[electronics.china@heraeus.com](mailto:electronics.china@heraeus.com)

#### Europe, Middle East and Africa

Phone +49 6181 35 4370

[electronics.emea@heraeus.com](mailto:electronics.emea@heraeus.com)

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 particular application. The Heraeus logo and Heraeus, figurative mark are trademarks or registered trademarks of Heraeus Holding GmbH or its affiliates. All rights reserved.