

Technical Data Sheet

THICK FILM MATERIALS

Product Type: Conductors

Product Name: C3605P / C3605S



Platinum Conductor Paste

Description

C3605P and C3605S are pastes only consisting of Pt powder and organic vehicle. They are intended to be mixed with customer specific adhesion promoters or to be co-fired with tape.

C3605P and C3605S can – depending on the exact viscosity which is delivered – be either sprayed / brushed (“P”-version) or screen printed (“S”-version).

They are particularly useful for the manufacture of O₂ sensors.

Key Benefits

- Fritless pastes
- Chemically resistant
- Can be used on alumina, zirconia or other bodies
- Free of lead, cadmium and nickel
- REACH² and ROHS³ compliant

Processing

- 1) Spatulate well prior to processing.

When stored in a refrigerator, 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 10 minutes.
- 4) Dry at 125 – 150 °C for 10 – 20 minutes.
- 5) Fire at 1100 – 1500 °C (peak) for 5 – 30 minutes, and with a total firing cycle time of c. 30 – 60 minutes.

Thinner

HVS 100

Typical Properties (Paste)¹

Form

“P” - version Sprayable / brushable
 “S” - version Screen printable

Viscosity

“P” - version Not measured (very low)
 “S” - version 30 – 45 Pas
 (25 °C, D = 50 /s)

Printing Speed

“S” – version Up to at least 10 cm/s

Shelf Life

“P” - version 3 months
 “S” - version 6 months
 from date of shipment with correct storage (in a dry, cool (2 – 23 °C) and dark place with container tightly shut).

Compatibility

Substrates Quartz, Al₂O₃, ZrO₂
 Mica, Porcelain

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Legend:

1) Typical properties 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) 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.

3) 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

Heraeus Electronics
Heraeus Deutschland GmbH & Co. KG
Heraeusstraße 12 – 14
63450 Hanau, Germany
www.heraeus-electronics.com

Americas
Phone +1 610 825 6050
electronics.americas@heraeus.com

China
Phone +86 21 3357 5457
electronics.china@heraeus.com

Asia Pacific
Phone +65 6571 7677
electronics.apac@heraeus.com

Europe, Middle East and Africa
Phone +49 6181 35 3069, +49 6181 35 3627
electronics.emea@heraeus.com