Heraeus

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 \boldsymbol{O}_2 sensors.

Key Benefits

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

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 "S" - version

Viscosity "P" - version "S" - version

Printing Speed

"S" – version

Shelf Life "P" - version

"S" - version

Sprayable / brushable Screen printable

Not measured (very low) 30 - 45 Pas (25 °C, D = 50 /s)

Up to at least 10 cm/s

3 months 6 months from date of shipment with correct storage (in a dry, cool (2 - 23 °C) and dark place with container

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).

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

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