

Conductors

C5909P

Gold Hole Plug

Description:

C5909P is a screen printable, gold paste designed as a hole plug in alumina substrates. The high solids loading allows for excellent filling properties. C5909P has low shrinkage, which allows for a complete fill of the through hole.

● **Key Benefits:**

- High solids loading
- Low shrinkage
- For use in a print process

● **Typical Properties:**

Metal Type:

Gold

Viscosity:

350 – 450 kcps,
Brookfiled HBT, SC4-14 spindle and
6R utility cup @ 10 rpm, 25°C

Solids:

94.5 ± 1.0%

Resistivity:

≤ 25 milliohms per square at 25 microns fired film thickness

If C5909P is to be used in a mixed metal circuit, a barrier material must be used. The recommended process materials are listed below:

Step 1) C5909P	Gold Hole Plug
Step 2) C4003	Barrier Conductor
Step 3) C8710	*Ag Bottom Conductor
Step 4) C5789	Gold Top Conductor

*Print over barrier interface.

● **Recommended Processing Guidelines:**

Hole sizes from 6 to 12 mil diameter
Squeegee durometer – 60 to 70
Squeegee speed – slow to medium
Print mode – contact and alternate direction
Passes - 4 to 5 alternate print passes

Note: A tissue should be placed between the substrate and the work holder for the purpose of evacuating air and solvent from the hole.

Application Method:

Stencil Printing Process
3 to 5 mil stencil thickness

Drying:

Dry at 150°C for 15 minutes

Firing:

850°C peak temperature
Dwell time of 8-12 minutes

Thinner:

RV-372 (Terpineol)

Warranty:

Material guaranteed to meet specifications for 6 months from date of shipment.

Storage:

Store in a dry location at 5°C-25°C.

DO NOT REFRIGERATE.

Allow paste to come to room temperature prior to opening. Spatulate well before using.

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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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