

## Technical Data Sheet

### THICK FILM MATERIALS

**Product Type:** Conductors

**Product Name:** 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

##### Recommended Processing Guidelines

Hole sizes from 6 – 12 mil diameter  
Squeegee durometer: 60 – 70  
Squeegee speed: slow to medium  
Print mode: contact and alternate direction  
Passes: 4 – 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 for the hole.

##### Application

Stencil printing process  
3 – 5 mil stencil thickness

##### Drying

150 °C for 15 minutes

##### Firing

850 °C peak temperature  
Dwell time 8 – 12 minutes

##### Thinner

RV-372

##### Warranty

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

##### 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.

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#### Typical Properties

##### Viscosity

350 – 450 Kcps Brookfield HBT  
SC4-14 spindle and 6R utility cup  
at 10 rpm, 25 °C

##### Solids

94.5 ± 1.0 %

##### Resistivity

≤ 25.0 mΩ/□ at 25 µm fired film thickness

If C 5909P is to be used in a mixed metal circuit, a barrier material must be used. The recommended process materials are listed below:

Step	1) C 5909P	Gold Hole Plug
Step	2) C 4003	Barrier Conductor
Step	3) C 8710	*Ag Bottom Conductor
Step	4) C 5789	Gold Top Conductor

\* Print over barrier interface

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