

## **Technical Data Sheet**



# 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

 $\begin{array}{l} \textbf{Solids} \\ 94.5 \pm 1.0 \ \% \end{array}$ 

#### Resistivity

 $\leq 25.0 \text{ m}\Omega/\Box$  at 25  $\mu\text{m}$  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

Heraeus Electronics

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