C 5909P is a screen printable, gold paste designed as a hole plug in alumina substrates. The high solids loading allows for excellent filling properties. C 5909P has low shrinkage, which allows for a complete fill of the through hole.

Key Benefits
- REACH\(^1\) and ROHS\(^2\) compliant
- High solids loading
- Low shrinkage
- For use in a print process

Typical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity</td>
<td>350 – 450 Kcps Brookfield HBT</td>
</tr>
<tr>
<td></td>
<td>SC4-14 spindle and 6R utility cup at 10 rpm, 25 °C</td>
</tr>
<tr>
<td>Solids</td>
<td>94.5 ± 1.0 %</td>
</tr>
<tr>
<td>Resistivity(^3)</td>
<td>≤ 25.0 mΩ/□ at 25 µm fired film thickness</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Step</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>C 5909P Gold Hole Plug</td>
</tr>
<tr>
<td>2)</td>
<td>C 4003 Barrier Conductor</td>
</tr>
<tr>
<td>3)</td>
<td>C 8710 *Ag Bottom Conductor</td>
</tr>
<tr>
<td>4)</td>
<td>C 5789 Gold Top Conductor</td>
</tr>
</tbody>
</table>

* Print over barrier interface

Recommended Processing Guidelines

- **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.
Technical Data Sheet

Legend:

1) 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.

2) 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.