C 5909A is a gold paste designed as a hole plug in alumina substrates. The high solids loading allows for excellent filling properties with bladder fill machines. C 5909A 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 with bladder fill machines

Typical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistivity</td>
<td>(\leq 25 , \text{m}\Omega) at 25 (\mu)m fired film thickness</td>
</tr>
<tr>
<td>Viscosity</td>
<td>600 – 1000 Kcps Brookfield HBT SC4-14 spindle and 6R utility cup at 10 rpm, 25 °C</td>
</tr>
<tr>
<td>Solids</td>
<td>95.0 ± 1.0 (%)</td>
</tr>
</tbody>
</table>

Bladder Fill Machine Starting Parameters

- **Equipment**: PTC Model VF-1000
- **Injection Pressure**: 10 – 20 PSI
- **Injection Time**: 5 – 10 sec
- **Clamp Time**: 5 – 10 sec

Note: Initial settings based on a 10 mil dia. Hole in a 25 mil thick substrate.

If C 5909A 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 5909A – 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

**Recommended Processing Guidelines**

- **Application**: Bladder Fill Machine
- **Drying**: 150 °C for 15 minutes
- **Firing**: 850 °C peak temperature. Dwell time 8 – 12 minutes
- **Thinner**: Thinning is generally not recommended. RV-507
- **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.