

## Development Product Information Sheet (DPIS\*)

### THICK FILM MATERIALS

**Product Type:** Conductors

**Product Name:** C 5735



### Pb and Cd Free Gold Conductor

\*DPIS-Typical Properties and Recommended Processing Guidelines subject to change

#### Description

C 5735 is a Pb, Ni and Cd free, gold conductor paste that has been formulated for use with Al or Au wire bonding applications. C5735 is a screen printable paste that gives an extremely dense and defect-free fired film. Fine lines are able to be screen printed down to 75 µm lines and spaces with etching possible for ultra-fine features down to 25 µm.

#### Key Benefits

- REACH<sup>1</sup> and ROHS<sup>2</sup> compliant
- Excellent Al and Au bondability
- High conductivity
- Fine line printing
- Etchable (Chemical and Laser)

#### Typical Properties

##### Resistivity

≤ 4.5 mΩ/□  
at 10 µm fired film thickness using 25 mil wide serpentine conductor pattern

##### Viscosity

400 – 500 Kcps Brookfield HBT  
DV-III #14 spindle in utility cup 10 rpm, 25 °C

##### Al Wire Bondability

1.25 mil Wire  
96 % Al<sub>2</sub>O<sub>3</sub> & IP9217  
Initial: >10g

##### Au Wire Bondability

1.25 mil Wire  
96 % Al<sub>2</sub>O<sub>3</sub> & IP9217  
Initial: >12g

##### Solids

84.5% ± 1

#### Recommended Processing Guidelines

##### Printing

325 – 400 mesh stainless steel screen  
0.3 – 0.5 mil emulsion  
1.1 mil wire

##### Settling:

A settling time of 10 – 15 minutes is recommended. Parts should be dried as soon as possible after the setting period, (within 20 minutes), so the paste does not skin over. Parts should not be left out for long periods of time before drying. This allows the paste to skin over and can compromise adhesion. Wet parts should be covered if not dried right away.

##### Drying

150 °C for 10 minutes  
Make sure ventilation is sufficient to prevent the wet film from skinning

##### Firing

850 °C peak temperature, 10 minutes at peak  
Total cycle time of 45 – 60 minutes

##### Thickness

Wet: 28-34 µm  
Fired: 6 – 10 µm

##### Thinner

RV-507

##### Warranty

TBD

##### Storage

Store in a dry location at 20 °C – 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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#### 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)

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