

## Technical Data Sheet

### THICK FILM MATERIALS

Product Type: Conductors

Product Name: C4082



Silver/ Palladium/ Platinum Conductor

#### Description

C4082 is a Pb and Cd free Ag/Pd/Pt formulation which provides outstanding leach resistance and aged adhesion with many types of solder. This material has excellent silver migration resistance. C4082 prints and holds 5 mil lines and spaces.

#### Key Benefits

- REACH<sup>1</sup> and ROHS<sup>2</sup> compliant
- Free of Pb and Cd
- Excellent Ag migration resistance
- High coverage
- Outstanding leach resistance

#### Typical Properties

##### Resistivity

≤ 100 mΩ/□ at 12 μm fired film thickness

##### Adhesion

80 x 80 mil pad  
SAC305 at 255 °C

Initial	≥ 5.0 lbs
72 hours at 150 °C	≥ 4.0 lbs
500 hours at 150 °C	≥ 4.0 lbs

##### Solderability

80 x 80 mil pad  
SAC305, 5 second dip  
at 255 °C, RMA flux

≥ 90 % solder coverage

##### Solder Leaching

	# of Dips	% Line Lost
SAC305 at 255 °C,	4	< 5 %
RMA flux, 5 seconds dip	5	< 10 %

##### Viscosity

150 – 250 Kcps, Brookfield HBT  
spindle #14 utility cup at 10 rpm, 25 °C

##### Solids

80.0 ± 1.0 %

#### Recommended Processing Guidelines

##### Printing

280 mesh stainless steel screen  
0.5 mil emulsion

##### Drying

150 °C for 10 minutes

##### Firing

850 °C peak temperature  
Dwell time of 9 – 11 minutes

##### Line Resolution

5 mils (125 μm)

##### Coverage

80 – 90 cm<sup>2</sup>/g at 30 – 35 μm wet film thickness

##### Thickness

Wet:	30 – 35 μm
Dried:	18 – 21 μm
Fired:	10 – 15 μm

##### 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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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

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