

Technical Data Sheet

THICK FILM MATERIALS

Product Type: Conductors

Product Name: C2129A



Pb and Cd Free Silver/Palladium Conductor

Description

C2129A is a high performance Pb, Cd and Ni free mixed bonded Ag/Pd conductor material. It offers cost savings over standard Ag/Pd formulations while maintaining the advantages of leach resistance and aged adhesion. C2129A is also aluminum wire bondable.

C2129A is supplied with a rheology, which results in a dense, uniform fired film.

Key Benefits

- Low cost
- Excellent solderability and leach resistance
- Low resistivity
- Pb, Cd and Ni free
- Good Al wire bond adhesion (initial and aged)
- REACH¹ and ROHS² compliant

Typical Properties

Resistivity:

≤ 6.0 mΩ/□ at 12 μm fired film thickness

Viscosity:

120 – 180 Kcps Brookfield HBT

SC4 – 14 spindle, 6R utility cup at 10 rpm, 25 °C

% Solids:

80.0 ± 1.0 %

Solderability:

Sn62/Pb36/Ag2 at 230 °C, RMA flux

5 second dip ≥ 95 %

Solder Leaching:

Sn62/Pb36/Ag2 at 230 °C, RMA flux

10 second dip up to 3 x 10 sec dip

Adhesion:

Sn62/Pb36/Ag2 at 230 °C, RMA flux

80 x 80 mil pads

Initial: ≥ 5.0 lbs

48 hours @ 150 °C: ≥ 3.0 lbs (1 x 850 °C)

≥ 4.0 lbs (5 x 850 °C)

1000 hours @ 150 °C: ≥ 3.0 lbs (1 x 850 °C)

≥ 4.0 lbs (5 x 850 °C)

Wire Bond Adhesion:

10 mil Al wire, 99.999 % Al, Elongation > 5 %

5 x 850 °C firing

Initial: ≥ 400.0 g

1000 hours @ 150 °C: ≥ 400.0 g

Recommended Processing Guidelines

Printing:

280 – 325 mesh stainless steel screen

0.5 mil emulsion

1.1 mil wire

Coverage:

85 cm²/g at 12 μm fired film thickness

Drying:

150 °C for 10 minutes

Firing:

850 °C peak temperature

Dwell time at peak temperature for 10 minutes

Film Thickness:

Wet: 30 – 36 μm

Dried: 22 – 27 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)

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