

Conductors

C2129A



Pb and Cd Free Silver/Palladium Conductor

Description:

C2129A is a high performance, lead, cadmium and nickel 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:**

- Lead, cadmium and nickel free
- Low cost
- Excellent solderability and leach resistance
- Low resistivity
- Good Al wire bond adhesion (initial and aged)

● **Typical Properties:**

Resistivity:

< 6.0 milliohms per square at 12 microns FFT

Viscosity

120-180 kcps, Brookfield HBT SC4-14 spindle and 6R utility cup @ 10 rpm, 25°C

% Solids:

80% ± 1%

Solderability:

Sn62/Pb36/Ag2
@ 230°C, RMA flux
5 second dip
≥ 95%

Solder Leaching:

Sn62/Pb36/Ag2
@ 230°C, RMA flux
10 second dip
up to 3 x 10 sec dip

Adhesion:

Sn62/Pb36/Ag2
@ 230°C, RMA flux
80 x 80 mil pads

Initial:	≥ 5 lbs
48 hours @ 150°C	≥ 3 lbs (1 x 850°C)
	≥ 4 lbs (5 x 850°C)
1,000 hours @ 150°C	≥ 3 lbs (1 x 850°C)
	≥ 4 lbs (5 x 850°C)

Wire Bond Adhesion:

10 mil Al wire
99.999% Al, Elongation > 5%
5 x 850°C firing

Initial	> 400 gms
1,000 hours @ 150°C	> 400 gms

● **Recommended Processing Guidelines:**

Printing:

280 – 325 mesh stainless steel screen.
0.5 mil emulsion
1.1 mil wire.

Coverage:

85 cm²/g at 12 microns FFT.

Drying:

Dry at 150°C for 10 minutes.

Firing:

850°C peak temperature
Dwell time at peak temperature of 10 minutes.

Film Thickness:

Wet:	30-36 microns
Dried:	22-27 microns
Fired:	10-15 microns

Thinner:

RV-372 (Terpineol)

Warranty:

Material guaranteed to meet specifications for 6 months from date of shipment.

Storage:

Store in a dry location at 5°C-25°C.
DO NOT REFRIGERATE.
Allow paste to come to room temperature prior to opening.
Spatulate well before using.

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The descriptions and engineering data shown here have been compiled by Heraeus using commonly-accepted procedures, in conjunction with modern testing equipment, and have been compiled as according to the latest factual knowledge in our possession. The information was up-to date on the date this document was printed (latest versions can always be supplied upon request). Although the data is considered accurate, we cannot guarantee accuracy, the results obtained from its use, or any patent infringement resulting from its use (unless this is contractually and explicitly agreed in writing, in advance). The data is supplied on the condition that the user shall conduct tests to determine materials suitability for a particular application.

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