

Technical Data Sheet

THICK FILM MATERIALS

Product Type: Conductors

Product Name: C5730



Pb and Cd Free Gold Conductor

Description

C5730 is a Pb, Ni and Cd free, gold conductor paste that has been formulated for use with Al or Au wire bond applications on Al₂O₃ and AlN.

Key Benefits

- Excellent Al and Au bondability
- High conductivity
- Good adhesion on Al₂O₃ and AlN

Recommended Processing Guidelines

Printing

280 – 325 mesh stainless steel screen
0.3 – 0.5 mil emulsion

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

Fired: 8 – 10 µm

Thinner

RV-507

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, as settling may occur during storage.

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Typical Properties

Resistivity

≤ 5.5 mΩ/□

at 12 μm fired film thickness using 25 mil wide serpentine conductor pattern

Coverage

72.0 – 75.0 cm²/g at 22 – 25 μm wet film thickness

Viscosity

280 – 380 Kcps Brookfield HBT

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

Al Wire Bondability

1.25 mil Wire

99 % Al, 1 % Si, Elongation 0.5 – 1.5 %

Initial: ≥ 8 g

* Note: All failures were wire breaks

10 mil Wire

99.88 % Al, Elongation 15 – 21.5 %

Initial: ≥ 250 g

Au Wire Bondability

1.25 mil Wire

99.99 % Au, Elongation 3.0 – 5.0 %

Initial: > 8 g

Solids

85.5 ± 1.5 %

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