

Technical Data Sheet



THICK FILM MATERIALS

Product Type: Conductors

Product Name: C2140



Pb and Cd Free Silver/Palladium Conductor

Description

C2140 is a Pb, Cd and Ni free Pd/Ag composition designed for applications where more leach resistance is required. The C2140 conductor is suitable for a wide variety of applications such as automotive electronics, power hybrids and commercial circuits where more stringent requirements exist. It exhibits excellent solderability, aged adhesion and is aluminum wire bondable.

Key Benefits

- Excellent solderability and leach resistance
- Excellent long term adhesion
- Pb, Cd and Ni free
- Good Al wire bond adhesion (initial and aged)

Recommended Processing Guidelines

Printing

280 – 325 mesh stainless steel screen
0.5 mil emulsion
Allow to level at room temperature for 5 – 10 minutes before drying

Printing Speed

Up to 7 in/sec

Coverage

75 cm²/g at 12 µm fired film thickness

Drying

150 °C for 10 to 15 minutes

Firing

850 °C peak temperature
10 minutes at peak
Total cycle time 30 – 60 minutes

Film Thickness:

Wet: 35 – 37 µm
Fired: 10 – 15 µm

Line Definition:

≥ 6 mils (150 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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Typical Properties

Resistivity

≤ 30 mΩ/□ at 12 μm fired film thickness

Viscosity

180 – 260 Kcps Brookfield HBT

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

Solids

78.75 ± 0.75 %

Solderability

Sn62/Pb36/Ag2 at 230 °C, RMA flux

100 % for 5 second dip

Solder Leaching

Sn62/Pb36/Ag2 at 225 °C, RMA flux

≥ 5 dips (10 seconds for each dip)

Adhesion

80 x 80 mil pad

Sn62/Pb36/Ag2 at 225 – 230 °C

Forced air box oven

Initial: ≥ 6.0 lbs

48 hours @ 150 °C: ≥ 4.0 lbs

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