

Technical Data Sheet



THICK FILM MATERIALS

Product Type: Conductors

Product Name: C2180



Pb and Cd Free Silver/Palladium Conductor

Description

C2180 is an 8:1 Ag/Pd conductor which is Pb, Cd and Ni free designed for automotive applications with similar electrical and mechanical properties to a 6:1 Ag/Pd conductor. The C2180 conductor is suitable for a wide variety of applications where low cost and excellent performance are required. It exhibits excellent solderability, aged adhesion properties and is aluminium wire bondable.

Key Benefits

- Low cost
- 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

80 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
Dried:	22 – 24 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

15 – 20 mΩ/□ at 12 μm fired film thickness

Viscosity

200 – 280 Kcps Brookfield HBT

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

Solids

80.0 ± 1.5 %

Solderability

Sn62/Pb36/Ag2 at 230 °C, RMA flux
100 % for 5 second dip

Solder Leaching

Sn62/Pb36/Ag2 at 225 °C, RMA flux
≥ 4 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

1000 hours @ 150 °C: ≥ 5.0 lbs

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

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