

Technical Data Sheet

THICK FILM MATERIALS

Product Type: Conductors

Product Name: C2160B



Pb and Cd Free Silver/Palladium Conductor

Description

C2160B is a Pb, Cd and Ni free Pd/Ag composition designed for hybrid applications and application where more leach resistance is required. The C2160B conductor is suitable for a wide variety of applications such as automotive electronics, power hybrids and commercial applications 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

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:	20 – 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.

Technical Data Sheet



Pb and Cd Free Silver/Palladium Conductor

Typical Properties

Resistivity

10 – 20 mΩ/□ at 12 μm fired film thickness

Viscosity

150 – 220 Kcps Brookfield HBT

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

Solids

79.0 ± 1.0 %

Solderability

Sn95.5/Ag3.5/Cu0.5 at 250 °C, RMA flux

100 % for 5 second dip

Solder Leaching

Sn95.5/Ag3.5/Cu0.5 at 250 °C, RMA flux

≥ 2 dips (5 seconds for each dip)

Adhesion

80 x 80 mil pad

Sn95.5/Ag3.5/Cu0.5 at 255 °C

Forced air box oven

Initial: ≥ 5.0 lbs

48 hours @ 150 °C: ≥ 4.0 lbs

Wire Bond Adhesion

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

5 x 850 °C firing

Initial: ≥ 450.0 g

1000 hours @ 150 °C: ≥ 400.0 g

Heraeus Electronics
Heraeus Deutschland GmbH & Co. KG
Heraeusstraße 12 – 14
63450 Hanau, Germany
www.heraeus-electronics.com

Americas
Phone +1 610 825 6050
electronics.americas@heraeus.com

China
Phone +86 53 5815 9601
electronics.china@heraeus.com

Asia Pacific
Phone +65 6571 7649
electronics.apac@heraeus.com

Europe, Middle East and Africa
Phone +49 6181 35 4370
electronics.emea@heraeus.com