

Technical Data Sheet

THICK FILM MATERIALS

Product Type: Conductors

Product Name: C7847

CELCION

Low Temperature Copper Conductor



Description

C7847 is a low firing Cd and phthalate free copper conductive paste. It was developed for use with IP6075 and SM1000. It exhibits excellent adhesion and solderability

Key Benefits

- REACH¹ and ROHS² compliant
- Lead, cadmium and nickel free
- Low firing temperature
- Compatible with Celcion[®] system of materials

Typical Properties

Resistivity

≤ 4.0 mΩ/□ at 25 μm fired film thickness

Adhesion

80 x 80 mil pad on IP6075
SAC 305 at 225 °C
RMA flux
Initial: ≥ 5.0 lbs

Solderability

SAC 305 at 225 °C
5 sec. dip, RMA flux
≥ 95 % coverage

Leach Resistance

SAC 305 at 225 °C
5 sec. dip, RMA flux
≤ 5 % loss

Coverage

60 cm²/g at 35 μm wet thickness

Viscosity

60 – 100 Kcps, Brookfield HBT
SC4 – 14 spindle and 6R utility cup at 10 rpm, 25 °C

Solids

85.0 – 88.0 %

Recommended Processing Guidelines

Printing

250 – 280 mesh stainless steel screen
0.5 mil emulsion

Drying

125 °C for 10 minutes

Firing Profile

550 – 600 °C peak temperature
Dwell time of 5 – 7 minutes
Oxygen content 1 – 5 ppm

Line Definition

≥ 10 mil lines and spaces

Thickness

Fired: 18 – 26 μm

Compatibility

IP6075 – Pb Free Dielectric on Al Substrates
SM1000 – White Solder Mask

Thinner

RV-507

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 have occurred during storage.

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Legend:

1) REACH compliant according to the latest ** Annex XIV to Regulation (EC) of the European Parliament and of the council on the Registration, Evaluation, Authorisation and Restriction of Chemicals ("REACH") by European Chemicals Agency and its subsequent amendments; the material does not contain any substance listed in Annex XIV.

2) RoHS compliant according to the latest ** Directives (European Union) of Restriction of Hazardous Substances ("RoHS") and its subsequent amendments (including the exceptions related to Pb)

* See the data sheet issue date (DD/MM/YY) as reference of validity of latest edition which is available on request

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