

Technical Data Sheet

THICK FILM MATERIALS

Product Type: Conductors

Product Name: C8829D

CELCION

Low Temperature Silver Conductor



Description

C8829D is a low firing Pb, Cd and phthalate free silver conductive paste. It was developed for the Celcion system and exhibits increased solder leach resistance and improved solderability.

Key Benefits

- REACH¹ and ROHS² compliant
- Low firing temperature
- Increased solder leach resistance
- Improved solderability
- Al wire bondable

Typical Properties

Resistivity

< 3.0 mΩ/□ at 12 μm fired film thickness

Adhesion

80 x 80 mil pad on IP6075
Sn62/Pb36/Ag2 at 225 °C
> 5.0 lbs
SAC 305 at 225 °C
> 5.0 lbs

Solderability

Celcion® substrate
Sn62/Pb36/Ag2 at 225 °C
5 sec. dip, RMA flux
≥ 90 %
SAC 305 at 225 °C
5 sec. dip, RMA flux
≥ 90 %

Viscosity

150 – 200 Kcps, Brookfield HBT
SC4 – 14 spindle and 6R utility cup at 10 rpm, 25 °C

Solids

80.5 ± 1.0 %

Al Wire Bondability on IP6075

10 mil wire
Initial: > 400 g

Recommended Processing Guidelines

Printing

230 – 280 mesh stainless steel screen
0.5 mil emulsion

Coverage

65 cm²/g at 45 μm wet film thickness

Drying

150 °C for 10 minutes

Firing

550 – 570 °C peak temperature
Dwell time of 5 – 7 minutes

Line Definition

≥ 6 mils (150 μm)

Thickness

Fired: 12 – 20 μm

Compatibility

IP6075 – Pb Free Dielectric on Al Substrates
IP6080 – Pb Free Dielectric on Al Substrates

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 have occurred during storage.

Technical Data Sheet

CELCION

Low Temperature Silver Conductor



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

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 21 3357 5457
electronics.china@heraeus.com

Asia Pacific
Phone +65 6571 7677
electronics.apac@heraeus.com

Europe, Middle East and Africa
Phone +49 6181 35 3069, +49 6181 35 3627
electronics.emea@heraeus.com