

## Technical Data Sheet

### THICK FILM MATERIALS

Product Type: Conductors

Product Name: C4774



Pb and Cd Free Ag/Pt Conductor

#### Description

C4774 is a Pb, Cd, and Ni free silver/platinum (3:1) conductor paste designed for high leach resistant applications using aluminum nitride substrates. C4774 also has excellent adhesion and solderability.

#### Key Benefits

- REACH<sup>1</sup> and ROHS<sup>2</sup> compliant
- Excellent leach resistance
- Excellent solderability
- Excellent adhesion on aluminium nitride

#### Typical Properties

##### Resistivity

80 – 100 mΩ/□  
at 12 μm fired film thickness

##### Adhesion

80x80 mil pad – Maruwa or Toshiba AlN substrate  
SAC 305 at 260 °C RMA Flux  
Initial: ≥ 4 lbs  
1000hrs. at 150 °C ≥ 3 lbs

##### Solderability

SAC 305 at 260 °C  
RMA Flux, 5 sec dip  
≥ 99% coverage

##### Leach Resistance

SAC 305 at 260 °C  
RMA flux, 1 x 6 minute dip  
≤ 10 % loss

##### Viscosity

150 - 220Kcps; Brookfield HBT,  
SC4-14 spindle and 6R utility cup  
at 10 rpm, 25°C

##### Solids

82.5 ± 1.0 %

#### Recommended Processing Guidelines

##### Printing

280 mesh stainless steel screen  
0.5 mil emulsion

##### Drying

150 °C for 10 minutes

##### Firing

850 °C peak temperature  
Dwell time of 10 – 15 minutes

##### Thickness

Dried 32 – 36 μm  
Fired 10 – 14 μm

##### Thinner

Heraeus RV-507 (Texanol)

##### Warranty

Material guaranteed to meet specifications for 6 months from date of shipment.

##### Storage

Store in a dry location at 20 °C – 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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#### 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