

## Technical Data Sheet



**Product Type:** Conductors

**Product Name:** C4740S



### Silver/Palladium Conductor

#### Description

C4740S is a general purpose Ag/Pt conductor for use on alumina and BeO substrates. C4740S is suitable as a termination for all Heraeus air fireable resistor systems and also performs well as an inner layer conductor in multilayer applications. C4740S can be printed at speeds up to 12 inches per second and is capable of resolving fine lines as narrow as 5 mils.

#### Key Benefits

- Outstanding adhesion to alumina and beryllium oxide substrates
- Excellent performance at high print speeds
- Excellent solderability
- REACH<sup>1</sup> compliant

#### Typical Properties

##### Resistivity:

≤ 2.9 mΩ/□ at 14 μm fired film thickness

##### Adhesion:

80 x 80 mil pad

Sn62/Pb36/Ag2 at 230 °C, RMA flux

Initial: ≥ 5.0 lbs

Aged: ≥ 3.0 lbs (48 hours @ 150 °C)

##### Solderability:

Sn62/Pb36/Ag2 at 225 °C,

RMA flux, 5 second dip

≥ 95 %

##### Solder Leaching:

Sn62/Pb36/Ag2 at 225 °C, RMA flux

<u>5 sec dips</u>	<u>% Line lost</u>
1	≤ 5 %
3	≤ 10 %

##### Viscosity:

90 – 140 Kcps Brookfield HBT

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

##### Solids:

84.0 ± 2.0 %

#### Recommended Processing Guidelines

##### Printing:

280 mesh stainless steel screen

0.5 mil emulsion

##### Drying:

Allow parts to level at room temperature for 5 minutes

150 °C for 10 minutes

##### Firing:

850 °C peak temperature

Dwell time of 10 minutes

##### Line Definition:

≥ 5 mils (125 μm)

##### Thickness:

Wet: 34 – 38 μm

Fired: 11 – 15 μm

##### Thinner:

RV-372

##### Coverage:

106 cm<sup>2</sup>/g at 14 μm fired film thickness

##### 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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#### Legend:

<sup>1)</sup> 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.

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