

## Technical Data Sheet

### THICK FILM MATERIALS

Product Type: Component Metallization

Product Name: ST1677



### Silver Conductor

#### Description

ST1677 is a silver conductor paste designed to screen print solderable electrodes onto a variety of electrical ceramic components. The fired film adheres well to a variety of substrates including alumina, piezoelectric transducers and NTC thermistors. The metalized electrode is solderable for lead attachments.

#### Key Benefits

- Good solderability
- Good adhesion to piezoelectric transducers and NTC thermistors
- REACH<sup>1</sup> and ROHS<sup>2</sup> compliant

#### Typical Properties

##### Resistivity:

< 4.0 mΩ/□ at 25 μm fired film thickness

##### Viscosity:

40 – 50 Kcps Brookfield RVT  
SC4 – 14 spindle, 6R utility cup at 10 rpm, 25 °C

##### Solderability:

Sn62/Pb36/Ag2 at 230 °C  
3 – 5 seconds dip  
> 99 % coverage

##### Adhesion:

Sn62/Pb36/Ag2 at 230 °C  
80 x 80 mil pad

Initial: > 6.0 lbs

#### Recommended Processing Guidelines

##### Printing:

100 – 250 mesh stainless steel screen  
0.3 – 1.0 mil emulsion

##### Drying:

100 – 150 °C for 10 – 20 minutes

##### Firing:

600 – 700 °C peak temperature  
Dwell time of 8 – 12 minutes at peak temperature  
Cycle time of 45 – 60 minutes

##### Thicknesses:

Fired: 8 – 12 μm

##### Thinner:

Heraeus RV-372 (Terpineol)

##### 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:

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)

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