

## Conductors

### C 8728 A



#### Pb and Cd Free Silver Conductor / DPIS\*

\* Development Product Information Sheet

#### Description

C 8728 A is a pure silver conductor that yields a smooth, dense film on alumina. This material is recommended for general purpose and large ground plane areas.

#### Key Benefits

- High aged adhesion
- Excellent ultra-sonic wire bondability with Al thick wire
- Free of lead, nickel and cadmium
- Free of phthalate
- REACH<sup>3</sup> and RoHS<sup>4</sup> compliant

#### Processing

1. Spatulate well prior to processing. When stored in a fridge: The paste should have acquired room temperature before being opened, to avoid condensation.
2. Print through a 200 – 325 mesh stainless steel screen.
3. Level at room temperature for 5 – 10 minutes.
4. Dry at 150 °C for 10 minutes.
5. Fire at 850°C (peak) for 10 – 12 minutes, and with a total firing cycle time of c. 30 – 60 minutes.

#### Typical Properties (Pastes)

Form:	Thixotropic paste
Viscosity:	30 – 50 Pas (25 °C, D = 100 s <sup>-1</sup> )
Solids:	81.5 % ± 1.5 %
Printing Speed:	Up to at least 20 cm / s
Coverage:	c. 60 cm <sup>2</sup> /g (FFT: 12 µm)
Shelf Life:	6 months from date of shipment with correct storage (in a dry, cool (5 to 25 °C) and dark place with container tightly shut)

#### Typical Properties (Fired)<sup>1</sup>

Fired Film Thickness <sup>2</sup> : (FFT)	10.0 – 15.0 µm
Resistivity <sup>2</sup> :	≤ 3.0 mΩ / □ (FFT: 12 µm)
Adhesion, aged <sup>2</sup> : (96Sn/3.5Ag/0.5Cu)	≥ 20 N (48 hrs, 150 °C)
Leach Resistance: (96Sn/3.5Ag/0.5Cu)	≥ 3 dips (245 °C, 5 s each)

Thinner

HVS 100

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- 1 Typical property based on laboratory test methods. For optimum results all materials should be fired in a profiled furnace supplied with dried, hydrocarbon and other contaminant free air (PP-1).
- 2 Measured on alumina 96% after printing with a 200 mesh steel screen; thickness of screen and emulsion combined was c. 100 µm, and the resultant printed track was 500 µm wide.
- 3 REACH compliant according to the Annex XIV (Feb. 17, 2011) of Commission Regulation (EU) No 143/2011 to Regulation (EC) No 1907/2006 of the European Parliament and of the council on the Registration, Evaluation, Authorisation and Restriction of Chemicals ("REACH") by European Chemicals Agency; we define a material as REACH compliant, as long as substances used are not recorded in the Annex XIV.
- 4 RoHS compliant according to the Directives (European Union) No 2011/65/EC of Restriction of Hazardous Substances ("RoHS") and its subsequent amendments (including the exceptions No. 7.c. 1 of the EU Directive e.g. related to Pb)

The descriptions and engineering data shown here have been compiled by Heraeus using commonly-accepted procedures, in conjunction with modern testing equipment, and have been compiled as according to the latest factual knowledge in our possession. The information was up-to date on the date this document was printed (latest versions can always be supplied upon request). Although the data is considered accurate, we cannot guarantee accuracy, the results obtained from its use, or any patent infringement resulting from its use (unless this is contractually and explicitly agreed in writing, in advance). The data is supplied on the condition that the user shall conduct tests to determine materials suitability for a particular application.

Europe [TH]  
 Heraeus Precious Metals GmbH & Co. KG  
 Thick Film Materials Division  
 Heraeusstr. 12 – 14  
 63450 Hanau  
 Germany  
 Tel: +49 (6181) 35 - 5466  
 E-Mail: th-info@heraeus.com  
 Internet: www.heraeus-thickfilm.com

North America  
 Heraeus Materials Technology LLC  
 Thick Film Materials Division  
 24 Union Hill Road  
 W. Conshohocken, PA 19428  
 USA  
 Tel: +1 (610) 825 - 6050  
 E-Mail: techservice.hcd@heraeus.com  
 Internet: www.heraeus-thickfilm.com

Asia [TH]  
 Heraeus Materials Technology Shanghai Ltd.  
 No. 1 Guang Zhong Road  
 Zhuanquiao Town, Minhang District  
 201108 Shanghai  
 People's Republic of China  
 Tel: +86 (21) 3357 - 5688  
 E-Mail: th.hmmts@heraeus.com  
 Internet: www.heraeus-thickfilm.com