



## ESL ELECTROSCIENCE

CERAMIC TAPES &  
THICK-FILM MATERIALS

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## CERMET GOLD CONDUCTOR

# 8847

### Thin Printing, RoHS Compliant\*

ESL 8847 is a cermet gold paste designed for printing on 96% alumina substrates. The conductor exhibits excellent line definition, surface smoothness, printability and gold wire bonding properties.

### PASTE DATA

<b>RHEOLOGY:</b>	Thixotropic, screen-printable paste
<b>VISCOSITY:</b> (Brookfield 2xHBDVIII, CPE 52 cone, 10 sec <sup>-1</sup> , 25°C to 26°C)	225±50 Pa·s
<b>BONDING MECHANISM:</b>	Fritless
<b>SHELF LIFE:</b> (25°C)	6 months

### PROCESSING

<b>SCREEN MESH/EMULSION:</b>	325/20 µm 400/25 µm
<b>LEVELING TIME:</b> (25°C)	5-10 minutes
<b>DRYING AT 125°C:</b>	10-15 minutes
<b>FIRING:</b>	<b>PEAK TEMPERATURE:</b> 850°C
	<b>TIME AT PEAK:</b> 10-15 min
<b>TOTAL CYCLE TIME:</b>	50 minutes
<b>SUBSTRATE OF CALIBRATION:</b>	96% alumina
<b>THINNER:</b>	ESL 413

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See Caution and Disclaimer on other side.

## TYPICAL PROPERTIES

<b>FIRED THICKNESS:</b>		8 ± 2 μm
<b>RESISTIVITY (8 μm fired thickness):</b>		≤ 5 mΩ/sq.
<b>PRINTING RESOLUTION:</b> (Line/Space)		100 μm x 100 μm
<b>THERMOSONIC WIRE BOND</b> (25μm Au Wire on alumina)	Initial	≥ 8 g
	1000 hrs @ 150°C	≥ 6 g
(50 μm Au wire on alumina) (fired thickness ≥ 10μm)	Initial	≥ 40 g
(100% wire breaks)	1000 hrs. @ 150°C	≥ 35 g

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**\*None of the six substances referred to in the RoHS Directive (2002/95/EC) are used in the formulation of this product.**

**CAUTION:** Proper industrial safety precautions should be exercised in using these products. Use with adequate ventilation. Avoid prolonged contact with skin or inhalation of any vapors emitted during use or heating of these compositions. The use of safety eye goggles, gloves or hand protection creams is recommended. Wash hands or skin thoroughly with soap and water after using these products. Do not eat or smoke in areas where these materials are used. Refer to appropriate MSDS sheet.

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