



ESL ELECTROSCIENCE

CERAMIC TAPES &
THICK-FILM MATERIALS

416 EAST CHURCH ROAD
KING OF PRUSSIA, PA 19406-2625, U.S.A

T: 610-272-8000
F: 610-272-6759

www.electroscience.com

CERMET GOLD CONDUCTOR

8884-G

RoHS Compliant*

ESL 8884-G is a fritless (MICRO-LOK[®]) cadmium, nickel and lead-free, high-conductivity gold conductor for use on top of alumina and 4913-G dielectric.

PASTE DATA

Rheology: Thixotropic, screen-printable paste

Viscosity:
(Brookfield RVT, 10rpm,
ABZ spindle, 25.5 ± 0.5 °C) 325 ± 25 Pa.s

Bonding Mechanism: Fritless, MICRO-LOK[®]

Shelf Life (20 - 25 °C): 6 months

PROCESSING

Screen Mesh, Emulsion: 325 S/S, 20 µm

Levelling Time (at 20°C): 5 - 10 min

Drying Time (at 125°C): 10 -15 min

Firing Temperature Range: 850 - 1000°C in air
Optimum: 850 °C
Time at peak: 10 min

Total Firing Cycle: 1 hour

Substrate for Calibration: 96% alumina

Thinner: ESL 401

ESL Europe 8884-G 9906-A

ESL Affiliates

ESL Europe (Agmet Ltd) • 8 Commercial Road • Reading • Berkshire • England • RG2 0QZ • Tel: +44 (0) 118 918 2400 • Fax: +44 (0) 118 986 7331 • Sales@ESLEurope.co.uk

ESL Nippon • Sukegawa Bldg. • 6th floor • 3-4 Yanagibashi 1-chome • Taito-ku • Tokyo 111, Japan • Tel: +81-3-3864-8521 • Fax: +81-3-3864-9270 • Sales@ESL-Nippon.co.jp

ESL China • Room #1707, Tower A, City Center of Shanghai • 100 Zunyi Road • Shanghai, China 200051 • Tel: +86-21-6237-0336 and 0337 • Fax: +86-21-6237-0338
ESLChina@eslshanghai.net

See Caution and Disclaimer on other side.

TYPICAL PROPERTIES

Fired Thickness:

(measured on a 2 mm x 2 mm pad on 96% alumina)

10 - 12 μm

Approximate Coverage:

80 - 85 cm^2/g

Resistivity:

(measured on a 100 mm x 0.25 mm conductor track)

2 - 3 $\text{m}\Omega/\square$

Printing Resolution:

(line/space)

0.125 mm / 0.125 mm

Adhesion:

(90° pull, 2 mm x 2 mm pads,
80Au/20Sn and 62Sn/36Pb/2Ag)

Initial pull strength:

> 4.5 kg

Thermosonic Au Wire bond:

(25 μm wire; bond length 1 mm;
100% wire breaks)

> 19 g

Aged Au 38 μm Bond:

(24 hours at 200°C; 100% wire breaks)

> 15 g

Ultrasonic Al Wire bond:

(25 μm wire; bond length 1 mm;
100% wire breaks)

> 10 g

Aged Al 25 μm Bond:

(48 hours at 150°C; 100% wire breaks)

> 6 g

Ultrasonic Al Wire Bond:

(380 μm wire)

> 1200 g

ESL Europe 8884-G 9906-A

*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 vapours 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.

DISCLAIMER: The product information and recommendations contained herein are based on data obtained by tests we believe to be accurate, but the accuracy and completeness thereof is not guaranteed. No warranty is expressed or implied regarding the accuracy of these data, the results obtained from the use hereof, or that any such use will not infringe any patent. ElectroScience assumes no liability for any injury, loss, or damage, direct or consequential, arising out of its use by others. This information is furnished upon the condition that the person receiving it shall make his own tests to determine the suitability thereof for his particular use, before using it. User assumes all risk and liability whatsoever in connection with his intended use. ElectroScience's only obligation shall be to replace such quantity of the product proved defective.