



ESL ELECTROSCIENCE

CERAMIC TAPES &
THICK-FILM MATERIALS

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CERMET GOLD CONDUCTOR

8880-G

RoHS Compliant*

ESL 8880-G is a fritless (MICRO-LOK[®]) cadmium, nickel and lead-free, high-conductivity gold conductor for use on top of alumina and ESL 4913 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 8880-G 9906-B

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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)

50 μm on 127 μm spiral

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)

> 15 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 8880-G 9906-B

***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.

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