



ESL ELECTROSCIENCE

CERAMIC TAPES &
THICK-FILM MATERIALS

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CERMET GOLD CONDUCTOR

8884 8884-A

The ESL 8884 and 8884-A are fritless 850°C firing gold conductors (MICRO-LOK®) that exhibit excellent adhesion on both alumina and beryllia. They are commonly used for high reliability, power hybrid modules. 8884-A is an alloyed version to give superior aged aluminium wire bond results; especially with large diameter wire.

PASTE DATA

Rheology:	Thixotropic, screen-printable paste
Viscosity: (Brookfield RVT, 10rpm, ABZ spindle, 25.5 ± 0.5 °C)	400 ± 25 Pa.s
Bonding Mechanism:	Fritless, MICRO-LOK®
Shelf Life (20 - 25 °C):	6 Months

PROCESSING

Screen Mesh, Emulsion:	325 S/S, 25 µm
Levelling Time (at 20°C):	5 - 10 min
Drying Time (at 125°C):	10 -15 min
Firing Temperature Range:	850 - 980°C in air
	Optimum: 850 °C
	Time at peak: 10 min
Rate of Ascent/Descent:	50 - 60°C / min
Substrate for Calibration:	96% alumina
Thinner:	ESL 401

ESL Europe 8884, 8884-A 9303-D

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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)

12.5 ± 2.0 µm

Approximate Coverage:

60 - 70 cm²/g

Resistivity:

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

8884

2.5 - 3.0 mΩ/□

8884-A

3.5 - 5.5 mΩ/□

Printing Resolution:

(line/space)

0.125 mm / 0.125 mm

Adhesion:

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

Initial pull strength:

6.0 - 9.0 kg

Aged 48 Hours at 150°C:

5.0 - 8.0 kg

Ultrasonic Al Wire Bond:

(50 µm wire)

8884-A

90 g

(500 µm wire)

8884-A

2,000 g

Thermosonic Au Wire Bond:

(25 µm wire)

8884 & 8884-A

≥ 8 g

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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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