



ESL ELECTROSCIENCE

CERAMIC TAPES &
THICK-FILM MATERIALS

416 EAST CHURCH ROAD
KING OF PRUSSIA, PA 19406-2625 USA T: 610.272.8000
F: 610.272.6759

www.electroscience.com

GOLD CONDUCTOR

8880-G

RoHS Compliant*

ESL 8880-G is a gold conductor material that exhibits excellent conductivity, adhesion to 96% alumina, and wire bonding characteristics. It is compatible with 4913-G dielectric which is also ROHS compliant*.

PASTE DATA

RHEOLOGY:	Thixotropic, screen printable paste
VISCOSITY: (Brookfield RVT, ABZ Spindle, 10 rpm, 25.5°C±0.5°C)	310±50 Pa·s
BONDING MECHANISM:	MICRO-LOK®
SHELF LIFE: (25°C)	6 months

PROCESSING

SCREEN MESH/EMULSION	325/20 µm
LEVELING TIME: (25°C)	5-10 minutes
DRYING AT 125°C:	10-15 minutes
FIRING TEMPERATURE RANGE:	850°C-1000°C in air
OPTIMUM:	850°C
TIME AT PEAK:	10 minutes
TOTAL FIRING CYCLE:	45 minutes
SUBSTRATE OF CALIBRATION:	96% alumina
THINNER:	ESL 401

8880-G 1409-C

ESL Affiliates

ESL China • Room#2712 • Far East International Plaza • No.317 Xianxia Road, • Changning District • Shanghai, China 200051 • Tel: +86-21-6237-0336 • Fax: +86-21-6237-0338 • eslchina@eslshanghai.net

ESL Europe • 8 Commercial Road • Reading, Berkshire, England RG2 0QZ • Tel: +44-118-918-2400 • Fax: +44-118-986-7331 • sales@esleurope.co.uk

ESL in Korea • AMT • South Korea • Tel: +82-31-466-0651 • Fax: +82-31-466-0658 • yumikim@esl-amt.co.kr

ESL-Nippon • Sukegawa Bldg 6th floor • 1-3-4 Yanagibashi • Taito-ku • Tokyo, Japan 111-0052 • Tel: +81-3-3864-8521 • Fax: +81-3-3864-9270 • sales@esl-nippon.co.jp

ESL Taiwan • 14F, No. 168, Dunhua N. Road • Sungshan District • Taipei 105, Taiwan • Tel: +886-975-553-612 • dshih@esl-taipei.com

See Caution and Disclaimer on other side.

TYPICAL PROPERTIES:

FIRED THICKNESS:

(measured on a 2.0 mm x 2.0 mm pad on 96% alumina)

8-12 μm

APPROXIMATE COVERAGE:

60-75 cm^2/gram

RESISTIVITY:

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

2 – 4 $\text{m}\Omega/\text{square}$

RESISTIVITY NORMALIZED AT 12.5 μm FIRED THICKNESS :

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

2.5 – 4.5 $\text{m}\Omega/\text{square}$

PRINTING RESOLUTION:

(Line/Space)

75 μm x 75 μm

ADHESION:

(90° pull, 2.0 mm x 2.0 mm pads, 80 Au/20 Sn and 62 Sn/36 Pb/2 Ag)

Initial Pull Strength:

≥ 50 N

THERMOSONIC Au WIRE BOND:

(25 μm wire; bond length 1.0 mm; no film lifts; $\geq 95\%$ wire breaks)

≥ 10 g

AGED Au WIRE (25 μm) BOND:

(48 hours at 150°C; $\geq 95\%$ wire breaks)

≥ 7 g

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*Complies with RoHS, ELV, WEEE and CHIP 3 EC directives.

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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