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GOLD CONDUCTOR

8880-G

CADMIUM-FREE, LEAD-FREE, AND NICKEL-FREE GOLD CONDUCTOR

ESL 8880-G is a newly developed gold conductor material that exhibits excellent conductivity, adhesion to 96% alumina, and wire bonding characteristics. It is compatible with 4913-G dielectric that is similarly free of the above elements.

PASTE DATA

RHEOLOGY:	Thixotropic, screen printable paste
VISCOSITY: (Brookfield RVT, ABZ Spindle, 10 rpm, 25.5°C±0.5°C)	300±25 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 9910-B

ESL Affiliates

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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)

10-12 μm

APPROXIMATE COVERAGE:

60-75 cm^2/gram

RESISTIVITY:

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

$\leq 3\text{m}\Omega/\text{square}$

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:

$\geq 45\text{ N}$

THERMOSONIC Au WIRE BOND:

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

$\geq 14\text{ g}$ average

AGED Au WIRE (25 μm) BOND:

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

$\geq 10\text{ g}$ average

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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 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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