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GOLD CERMET CONDUCTOR

8836-F

GOLD CONDUCTOR DESIGNED FOR FAST FIRING

ESL 8836-F is an economical, general-purpose gold conductor for use on alumina and ESL 4901 and 4905 Series dielectrics. It has been specifically designed to give thin, smooth, dense films (7-9 μm fired thickness). Excellent results are obtained with thermosonic gold wire bonding (38 μm). ESL 8836-F utilizes the benefits of a fast firing cycle and may be used as a resistor termination.

PASTE DATA

RHEOLOGY:	Thixotropic, screen printable paste
VISCOSITY: (Brookfield RVT, ABZ Spindle, 10 rpm, 25.5°C±0.5°C)	200±25 Pa·s
BONDING MECHANISM:	Mixed
SHELF LIFE: (20°C)	6 months

PROCESSING

SCREEN MESH/EMULSION	325/20 μm
LEVELING TIME: (20°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:	1 minute
TOTAL FIRING CYCLE:	13 minutes
SUBSTRATE OF CALIBRATION:	96% alumina
THINNER:	ESL 401 or 413

8836-F 9909-New

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)

6-9 μm

APPROXIMATE COVERAGE:

80-85 cm^2/g

RESISTIVITY:

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

$\leq 7.5\text{m}\Omega/\text{square}$

PRINTING RESOLUTION:

(Line/Space)

50 μm on 127 μm spiral

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:

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

$\geq 14\text{ g}$ average

AGED Au WIRE (38 μm) BOND:

(24 hours at 200°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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