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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

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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)	≤ 7.5mΩ/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:	≥ 45 N
THERMOSONIC Au WIRE BOND: (38 μm wire; bond length 1.0mm; no film lifts; ≥ 95% wire breaks)	≥ 14 g average
AGED Au WIRE (38 μm) BOND: (24 hours at 200°C; ≥ 95% wire breaks)	≥ 10 g average

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