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CERMET GOLD CONDUCTOR 8846-G

RoHS Compliant*

ESL 8846-G is a general-purpose alloyed gold conductor for use on alumina and 4913-G dielectric. It has been specifically designed to give thin, smooth and dense films (7 - 9 µm fired thickness). Excellent results are obtained with both thermosonic gold and aluminium wire bonding. This alloyed gold conductor gives superior aged aluminium wire-bond performance.

PASTE DATA

Rheology:	Thixotropic, screen-printable paste
Viscosity: (Brookfield RVT, 10 rpm, ABZ spindle, 25.5 ± 0.5 °C)	350 ± 25 Pa.s
Bonding Mechanism:	Mixed-bonded
Shelf Life (20 - 25 °C):	6 months

PROCESSING

Screen Mesh, Emulsion:		325 S/S, 20 µm
Levelling Time (at 20 °C):		5 - 10 min
Drying Time (at 125 °C):		10 -15 min
Firing Temperature Range:		850 - 1000°C in air
	Optimum:	850 °C
	Time at peak:	10 min
Total Firing Cycle:		30 min
Substrate for Calibration:		96% alumina
Thinner:		ESL 401

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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)		7 - 9 µm
Approximate Coverage:		80 - 85 cm²/g
Resistivity: (measured on a 100 mm x 0.25 mm conductor track)		<7.5 mΩ/□
Printing Resolution: (line/space)		0.100 mm / 0.100 mm
Adhesion: (90° pull, 2 mm x 2 mm pads, 80Au/20Sn and 62Sn/36Pb/2Ag)	Initial pull strength: Aged 48 hours at 150 °C	> 6.0 kg > 4.0 kg
Thermosonic Au Wire Bond: (25 µm wire; bond length 1 mm; 100 % wire breaks)		> 8 g average
Aged Au Wire Bond: (24 hours at 200 °C)		> 7 g average
Ultrasonic Al Wire Bond: (25 µm wire; bond length 1 mm; 100 % wire breaks)		> 9 g average
Aged Al Wire Bond: (48 hours at 150 °C) (1000 hours at 150 °C)		> 6.0 g average > 4.5 g average

***None of the six substances referred to in the RoHS Directive (2002/95/EC) are used in the formulation of this product.**

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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