ESL ELECTROSCIENCE
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CERMET GOLD CONDUCTOR 8884-G

RoHS Compliant*

ESL 8884-G is a fritless (MICRO-LOK®) cadmium, nickel and lead-free, high-conductivity gold conductor for use on top of alumina and 4913-G dielectric.

PASTE DATA

Rheology:	Thixotropic, screen-printable paste
Viscosity: (Brookfield RVT, 10rpm, ABZ spindle, 25.5 ± 0.5 °C)	325 ± 25 Pa.s
Bonding Mechanism:	Fritless, MICRO-LOK®
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:		1 hour
Substrate for Calibration:		96% alumina
Thinner:		ESL 401

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TYPICAL PROPERTIES

Fired Thickness: (measured on a 2 mm x 2 mm pad on 96% alumina)		10 - 12 µm
Approximate Coverage:		80 - 85 cm²/g
Resistivity: (measured on a 100 mm x 0.25 mm conductor track)		2 - 3 mΩ/□
Printing Resolution: (line/space)		0.125 mm / 0.125 mm
Adhesion: (90° pull, 2 mm x 2 mm pads, 80Au/20Sn and 62Sn/36Pb/2Ag)	Initial pull strength:	> 4.5 kg
Thermosonic Au Wire bond: (25 µm wire; bond length 1 mm; 100% wire breaks)		> 19 g
Aged Au 38 µm Bond: (24 hours at 200°C; 100% wire breaks)		> 15 g
Ultrasonic Al Wire bond: (25 µm wire; bond length 1 mm; 100% wire breaks)		> 10 g
Aged Al 25 µm Bond: (48 hours at 150°C; 100% wire breaks)		> 6 g
Ultrasonic Al Wire Bond: (380 µm wire)		> 1200 g

***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.