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CERMET PLATINUM PALLADIUM GOLD CONDUCTOR 5867

ESL 5867 is a platinum palladium gold conductor designed for excellent bond strength, good solderability and solder leach resistance on both alumina and dielectric. This material can be fired in the range of 850°C to 930°C, and is wirebondable with both ultrasonic aluminium wire and thermosonic gold wire. If used as the top conductor layer on dielectric, firing in the range of 700°C to 750°C will improve the solderability.

PASTE DATA

RHEOLOGY:	Thixotropic, screen printable paste
VISCOSITY: (Brookfield RVT, ABZ Spindle, 10 rpm, 25.5°C±0.5°C)	350±25 Pa·s
BONDING MECHANISM:	Mixed
SHELF LIFE: (at 25°C)	6 months

PROCESSING

SCREEN MESH/EMULSION:	325/25 µm
LEVELING TIME: (25°C)	5-10 minutes
DRYING AT 125°C:	10-15 minutes
FIRING RANGE:	700°C-930°C
OPTIMUM:	850°C
TIME AT PEAK:	10-12 minutes
RATE OF ASCENT/DESCENT:	60°C-100°C/minute
SUBSTRATE OF CALIBRATION:	96% alumina
THINNER:	ESL 413

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See Caution and Disclaimer on other side.

TYPICAL PROPERTIES

FIRED THICKNESS:		10-15 µm
APPROXIMATE COVERAGE:		55-65 cm^2/g
RESISTIVITY: (Normalized 12.0 µm)		≤ 125 mΩ/sq.
PRINTING RESOLUTION: (Line/Space)		250 µm x 250 µm
SOLDER WETTABILITY: (RMA Flux, 5 sec. dip)	**62 Sn/36 Pb/2 Ag, 220°C±5°C**	Excellent
	63 Sn/37 Pb, 250°C±5°C	Excellent
SOLDER LEACH: (No. of 10 sec. dips to double resistance of 0.25 mm wide x 100 mm long conductor)		
	62 Sn/36 Pb/2 Ag, 220°C±5°C	5-9 dips
	63 Sn/37 Pb, 250°C±5°C	≥ 6 dips
ADHESION: (90° pull, 2.0 x 2.0 mm pads, 62 Sn/36 Pb/2 Ag, 220°C±5°C)		
	Initial pull test:	4 - 5 kg
	Aged for 48 hours at 150°C:	3 - 4 kg
ULTRASONIC WIRE BOND: (25 µm Al wire)		5-7 g
THERMOSONIC WIRE BOND: (25 µm Au wire)		3-4 g

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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