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CERMET PLATINUM GOLD CONDUCTOR 5837-A

ESL 5837-A is designed for use on top of 4905-C multilayer dielectric. It is solderable with Sn60 solder and exhibits good solderability and excellent solder leach resistance. This material is ideally suited for high reliability hybrid circuits and for resistor terminations. This material should not be used directly on alumina substrates.

PASTE DATA

RHEOLOGY:	Thixotropic, screen printable paste
VISCOSITY: (Brookfield RVT, ABZ Spindle, 10 rpm, 25.5°C±0.5°C)	300±25 Pa·s
BONDING MECHANISM:	Mixed
SHELF LIFE: (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:	
OPTIMUM:	850°C
TIME AT PEAK:	10-12 minutes
RATE OF ASCENT/DESCENT:	60°C-100°C/minute
SUBSTRATE OF CALIBRATION:	4905-C on 96% alumina
THINNER:	ESL 413

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TYPICAL PROPERTIES

FIRED THICKNESS:	10-15 µm
APPROXIMATE COVERAGE:	55-70 cm^2/gram
RESISTIVITY: (Normalized to 12.5 µm)	≤ 70 mΩ/sq.
PRINTING RESOLUTION: (Line/Space)	125 µm x 125 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. dip to double resistance of 0.25 mm wide x 100 mm long conductor)	
62 Sn/36 Pb/2 Ag, 220°C±5°C	5-10 dips
ADHESION: (90° pull, 2.0 x 2.0 mm pads, 62 Sn/36 Pb/2 Ag, 220°C±5°C)	
Initial pull strength:	50-60 N
Aged 48 hours at 150°C:	30-50 N
ULTRASONIC WIRE BOND: (25 µm Al wire)	5-8 grams
THERMOSONIC WIRE BOND: (25 µm Au wire)	3-5 grams
COMPATIBILITY:	R-300-A/B Resistor Series