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CERMET PALLADIUM SILVER CONDUCTOR 9635-B

ESL 9635-B is a member of the 9635 Series of palladium silver conductor inks with excellent elevated temperature bond retention and solder leach resistance. It is recommended for packaging and multilayer applications because of its high adhesion to alumina. The 9635-B retains its solderability after overglaze firing.

PASTE DATA

RHEOLOGY:	Thixotropic, screen printable paste
VISCOSITY: (Brookfield RVT, ABZ Spindle, 10 rpm, 25.5°C±0.5°C)	325±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:	850°C-980°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 404

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TYPICAL PROPERTIES

FIRED THICKNESS:	10-15 μm
APPROXIMATE COVERAGE:	60-70 cm^2/gram
RESISTIVITY:	20-40 mΩ/square
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	good
63 Sn/37 Pb, 250°C±5°C	good - fair
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	5-9 dips
63 Sn/37 Pb, 250°C±5°C	3-4 dips
ADHESION: (90° pull, 2.0 mm x 2.0 mm pads, 62 Sn/36 Pb/2 Ag, 220°C±5°C)	
Initial pull strength:	40-70 N
Aged 48 hours at 150°C:	20-40 N
ULTRASONIC WIRE BOND: (25 μm Al wire)	4-5 grams
THERMOSONIC WIRE BOND: (25 μm Au wire)	5-8 gram
(50 μm Au wire)	20-30 grams

9635-B 9710-A