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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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ESL Affiliates

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See Caution and Disclaimer on other side.

TYPICAL PROPERTIES

FIRED THICKNESS:	10-15 μm
APPROXIMATE COVERAGE:	60-70 cm^2/gram
RESISTIVITY:	20-40 $\text{m}\Omega/\text{square}$
PRINTING RESOLUTION: (Line/Space)	250 μm x 250 μm
SOLDER WETTABILITY: (RMA flux, 5 sec. dip)	
62 Sn/36 Pb/2 Ag, 220°C \pm 5°C	good
63 Sn/37 Pb, 250°C \pm 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 \pm 5°C	5-9 dips
63 Sn/37 Pb, 250°C \pm 5°C	3-4 dips
ADHESION: (90° pull, 2.0 mm x 2.0 mm pads, 62 Sn/36 Pb/2 Ag, 220°C \pm 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

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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 vapors 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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