CERMET SILVER CONDUCTOR

ESL 9996-B is a silver conductor specially designed for Elpor II CCMS (Ceramic Coated Metal Substrates). It exhibits good solderability, high conductivity, low cost and excellent adhesion.

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: 200-325/25 µm

LEVELING TIME: (25°C) 5-10 minute

DRYING AT 125°C: 10-15 minute

FIRING RANGE: 625°C-930°C

OPTIMUM: 625°C on Elpor II

TIME AT PEAK: 10-12 minutes

RATE OF ASCENT/DESCENT: 60°C-100°C/minute

SUBSTRATE OF CALIBRATION: Elpor II

THINNER: ESL 401
TYPICAL PROPERTIES

FIRED THICKNESS: 10-17 µm
APPROXIMATE COVERAGE: 60-70 cm²/g
RESISTIVITY: 1-3 mΩ/sq.
PRINTING RESOLUTION: 250 µm x 250 µm
(Line/Space)
SOLDER WETTABILITY: Excellent
(RMA flux, 5 sec. dip, 62 Sn/36 Pb/2 Ag, 220°C±5°C)
SOLDER LEACH: 4-8 dips
(No. of 10 sec. dip to double the resistance of a 0.25 mm wide x 100 mm long conductor, 62 Sn/36 Pb/2 Ag, 220°C±5°C)
ADHESION:
Initial pull strength: ≥ 15 N
(Aged 48 hours at 150°C: ≥ 10 N)
(90°pull, 2.0 mm x 2.0 mm pads, 62 Sn/36 Pb/2 Ag)
ULTRASONIC WIRE BOND: 7-9 g
(25 µm Al wire)
THERMOSONIC WIRE BOND: 4-6 g
(25 µm Au wire)

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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