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GOLD CERMET CONDUCTOR

8835-1A
8835-1B

ESL 8835-1B is a mixed bonded, high conductivity gold conductor for use on alumina. It exhibits excellent adhesion and is well suited for use as resistor terminations, and for microwave applications. It allows printing of 75 micrometers and 100 micrometers wide lines with a suitable screen.

The 8835-1A is an alloyed version of 8835-1B, and is designed to minimize the Al-Au intermetallic compound formed during elevated temperature aging of aluminum ultrasonic wire bonds.

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
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 401

8835-1A/B 9710-D

ESL Affiliates

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See Caution and Disclaimer on other side.

TYPICAL PROPERTIES:

FIRED THICKNESS:	8-15 μm
APPROXIMATE COVERAGE:	55-70 cm^2/gram
RESISTIVITY:	2-3 $\text{m}\Omega/\text{square}$
PRINTING RESOLUTION: (Line/Space)	100 μm x 100 μm
SOLDER WETTABILITY: (RMA flux, 5 sec. dip)	

80 Au/20 Sn	Excellent
25 In/75 Pb	Excellent
50 In/50 Pb	Excellent

ADHESION:
(90° pull, 2.0 mm x 2.0 mm pads, 80 Au/20 Sn, 280°C)

Initial pull strength:	40-70 N
Aged 48 hours at 150°C:	40-60 N

ULTRASONIC WIRE BOND: (25 μm Al wire)	8-10 grams
THERMOSONIC WIRE BOND: (25 μm Au wire)	6-9 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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