



ESL ELECTROSCIENCE

CERAMIC TAPES &
THICK-FILM MATERIALS

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CERMET GOLD CONDUCTOR

8835-1B 8835-1BH

ESL 8835-1B and 8835-1BH are mixed-bonded, high-conductivity gold materials for use on alumina that give excellent adhesion and are well suited for use as resistor terminations and for microwave applications. 8835-1B exhibits superior line definition.

PASTE DATA

Rheology:	Thixotropic, screen-printable paste
Viscosity: (Brookfield RVT, 10rpm, ABZ spindle, 25.5 ± 0.5 °C)	300 ± 25 Pa.s
Bonding Mechanism:	Mixed-bonded
Shelf Life (20 - 25 °C):	6 Months

PROCESSING

Screen Mesh, Emulsion:	325 S/S, 20 µm
Levelling Time (at 20°C):	5 - 10 min
Drying Time (at 125°C):	10 -15 min
Firing Temperature Range:	850 - 980°C in air
	Optimum: 850 °C
	Time at peak: 10 min
Total Firing Cycle:	1 hour
Substrate for Calibration:	96% alumina
Thinner:	ESL 401

ESL Europe 8835-1B, 8835-1BH 0207-D

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See Caution and Disclaimer on other side.

TYPICAL PROPERTIES

Fired Thickness:

(measured on a 2 mm x 2 mm pad on 96% alumina)

12.5 ± 2.5 µm

Approximate Coverage:

55 - 70 cm²/g

Resistivity:

(measured on a 100 mm x 0.25 mm conductor track)

≤4 mΩ/□

Printing Resolution:

(line/space)

8835-1B

0.075 mm / 0.075 mm

8835-1BH

0.100 mm / 0.100 mm

Adhesion:

(90° pull, 2 mm x 2 mm pads,
80 Au/20Sn and 62Sn/36Pb/2Ag)

Initial pull strength: 3.8 - 7.0 kg

Aged 48 Hours at 150°C: 2.5 - 6.0 kg

Ultrasonic Al Wire Bond:

(25 µm wire; Bond length 1 mm,
100% Wire breaks)

7 - 12 g

Thermosonic Au Wire Bond:

(38 µm wire; Bond length 1 mm,
100% Wire breaks)

12 - 20 g

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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 vapours 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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