ESL ELECTROSCIENCE
CERAMIC TAPES & THICK-FILM MATERIALS
416 EAST CHURCH ROAD
KING OF PRUSSIA, PA 19406-2625, U.S.A
T: 610-272-8000
F: 610-272-6759
www.electroscience.com

CERMET GOLD CONDUCTOR 8881-B

ESL 8881-B is a thin printing fritless (MICRO-LOK®) gold paste designed for use on 96% alumina substrates or with 4905-C dielectric to give high coverage. The fired film exhibits strong adhesion to both bare alumina and 4905-C dielectric and may be easily etched using KI/I_2 solutions. Fired films of 8881-B are very dense with no centre line depression and give excellent line definition. 8881-B exhibits excellent wire bondability is a mixed-bonded, high-conductivity gold material for use on alumina.

PASTE DATA

Rheology:	Thixotropic, screen-printable paste
Viscosity: (Brookfield RVT, 10rpm, ABZ spindle, 25.5 ± 0.5 °C)	350 ± 25 Pa.s
Bonding Mechanism:	Fritless, MICRO-LOK®
Shelf Life (20 - 25 °C):	6 months

PROCESSING

Screen Mesh, Emulsion:		325 S/S, 15 µm
Levelling Time (at 20°C):		5 - 10 min
Drying Time (at 125°C):		10 -15 min
Firing Temperature Range:		850 - 1000°C in air
	Optimum:	850 °C
	Time at peak:	10 min
Rate of Ascent/Descent:		50 - 60 °C / min
Substrate for Calibration:		96% alumina
Thinner:		ESL 413

ESL Affiliates
ESL Europe (Agmet Ltd) • 8 Commercial Road • Reading • Berkshire • England • RG2 0QZ • Tel: +44 (0) 118 918 2400 • Fax: +44 (0) 118 986 7331 • Sales@ESLEurope.co.uk
ESL Nippon • Sukegawa Bldg. • 6th floor • 3-4 Yanagibashi 1-chome • Taito-ku • Tokyo 111, Japan • Tel: +81-3-3864-8521 • Fax: +81-3-3864-9270 • Sales@ESL-Nippon.co.jp
ESL China • Room #1707, Tower A, City Center of Shanghai • 100 Zunyi Road • Shanghai, China 200051 • Tel: +86-21-6237-0336 and 0337 • Fax: +86-21-6237-0338 ESLChina@eslshanghai.net

TYPICAL PROPERTIES

Fired Thickness:
(measured on a 2 mm x 2 mm pad on 96% alumina) 7.0 ± 1.0 µm

Approximate Coverage: 80 cm²/g

Resistivity:
(measured on a 100 mm x 0.25 mm conductor track) < 5.0 mΩ/□

Printing Resolution:
(line/space) 0.075 mm / 0.075 mm
Special screen: 0.050 mm / 0.050 mm

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

Initial pull strength:	> 5.0 kg
Aged 48 Hours at 150°C:	> 3.6 kg

Ultrasonic Al Wire Bond:
(25 µm wire; bond length 1 mm;
100% wire breaks) > 8 g

Thermosonic Au Wire Bond:
(25 µm wire; bond length 1 mm;
100% wire breaks) > 8 g

Aged Au Wire Bond:
(25 µm wire; 24 hours at 150°C) > 6 g