



# Electro-Science Laboratories, Inc.

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## CERMET GOLD CONDUCTOR

## 8881-BA

A newly developed dense alloyed gold version of ESL 8881-B is designed for use on 96% alumina or on 4905-C multilayer dielectric. ESL 8881-BA exhibits strong adhesion to both alumina and 4905-C, high coverage, excellent wire bondability for aluminum wire, no center-line depression, and good line definition. For gold wirebonding, 8881-B is recommended.

### HIGHLIGHTS OF 8881-BA ARE:

Thin, very dense fired film  
Excellent printing  
Excellent wire bonding

Fine line resolution  
850°C firing temperature

### PASTE DATA

#### RHEOLOGY:

Thixotropic, screen printable paste

#### VISCOSITY:

(Brookfield RVT, 10 rpm, ABZ spindle, 25.5°C±0.5°C)

275±25 Pa·s

#### BONDING MECHANISM:

MICRO-LOK®

#### SHELF LIFE: (at 25°C)

6 months

### PROCESSING

#### SCREEN MESH/EMULSION:

325/25 µm

#### LEVELING TIME: (at 25°C)

5-10 minutes

#### DRYING AT 125°C:

10-15 minutes

#### OPTIMUM FIRING TEMPERATURE:

850°C

#### TIME AT PEAK:

10 minutes

#### RATE OF ASCENT/DESCENT:

60°C-100°C/minute

#### SUBSTRATE FOR CALIBRATION:

96% alumina

8881-BA 9710-C

#### ESL Affiliates

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See Caution and Disclaimer on other side.

**THINNER:**

ESL 413

## TYPICAL PROPERTIES

**THICKNESS:**

7-9  $\mu\text{m}$

**RESISTIVITY:**

< 5 m $\Omega$ /sq.

**PRINTING RESOLUTION:**

(Line/Space)

75  $\mu\text{m}$ /75  $\mu\text{m}$

**SOLDERABILITY:**

solderable with 80 Au/20 Sn alloy solder

**ULTRASONIC Al WIRE BOND:**

**Initial (25  $\mu\text{m}$  Al wire):**

> 8 grams

**Aged (48 hours at 150°C):**

> 6 grams

8881-BA 9710-C

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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.

**DISCLAIMER:** The product information and recommendations contained herein are based on data obtained by tests we believe to be accurate, but the accuracy and completeness thereof is not guaranteed. No warranty is expressed or implied regarding the accuracy of these data, the results obtained from the use hereof, or that any such use will not infringe any patent. Electro-Science assumes no liability for any injury, loss, or damage, direct or consequential arising out of its use by others. This information is furnished upon the condition that the person receiving it shall make their own tests to determine the suitability thereof for their particular use, before using it. User assumes all risk and liability whatsoever in connection with their intended use. Electro-Science's only obligation shall be to replace such quantity of the product proved defective.

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