



# Electro-Science Laboratories, Inc.

416 East Church Road • King of Prussia, PA 19406-2625, U.S.A

610-272-8000 • Fax: 610-272-6759 • www.ElectroScience.com • Sales@ElectroScience.com

## PLATINUM PALLADIUM SILVER CONDUCTOR

# 9566

ESL 9566 is a general purpose conductor for use in hybrid circuits. It has excellent solderability and low resistivity. It makes good electrical contact with ESL 8836 gold conductor, thermosonic gold wire bonding, and with ESL 8835-1B, thermal printhead terminations. ESL 9566 can also be used with other ESL gold inks in high reliability circuits.

### PASTE DATA

<b>RHEOLOGY:</b>	Thixotropic, screen printable paste
<b>VISCOSITY:</b> (Brookfield RVT, ABZ Spindle, 10 rpm, 25.5±0.5°C)	225±25 Pa·s
<b>BONDING MECHANISM:</b>	Mixed
<b>SHELF LIFE:(25°C)</b>	6 months

### PROCESSING

<b>SCREEN MESH/EMULSION:</b>	325/12.5 μm
<b>LEVELING TIME: (25°C)</b>	5-10 minutes
<b>DRYING AT 125°C:</b>	10-15 minutes
<b>FIRING RANGE:</b>	850°C-930°C
<b>OPTIMUM:</b>	850°C
<b>TIME AT PEAK:</b>	10-12 minutes
<b>RATE OF ASCENT/DESCENT:</b>	60°C-100°C/minute
<b>SUBSTRATE OF CALIBRATION:</b>	96% alumina, beryllia
<b>THINNER:</b>	ESL 401

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#### ESL Affiliates

Japan: ESL-Nippon Company, Ltd. • Sukegawa Bldg. • 6<sup>th</sup> floor • 3-4 Yanagibashi 1-chome • Taito-ku • Tokyo 111, Japan • Tel: (011-81)-3-3864-8521 • Fax: (011-81)-3-3864-9270  
NipponSales@ESLNippon.com

China: Shanghai Agmet Electro-Science Laboratory Ltd. • Second Floor Bldg. 12A1 • #223 North Fe Te Road • Waigaoqiao Free Trade Zone • Shanghai, China  
Tel: (011-86)-21-5866-0497 • Fax: (011-86)-21-5866-0497 • ShanghaiSales@ShanghaiESL.com

Europe: Agmet, Ltd. • 8 Commercial Road • Reading, Berkshire, England RG2 0QZ • Tel: (011-44)-118-987-3139 • Fax: (011-44)-118-986-7331 • Sales@ESLEurope.co.uk

See Caution and Disclaimer on other side.

## TYPICAL PROPERTIES

<b>FIRED THICKNESS:</b>	12.5±2.5 µm
<b>RESISTIVITY:</b>	≤ 8 mΩ/sq.
<b>PRINTING RESOLUTION:</b> (Line/Space)	500 µm x 500 µm
<b>SOLDER WETTABILITY:</b> (RMA flux, 5 sec. dip) (62Sn/36Pb/2Ag, 220°C±5°C)	Excellent
<b>SOLDER LEACH:</b> (No. of 10 sec. dip to double resistance of 0.25 mm wide x 100 mm long conductor)	
<b>62 Sn/36 Pb/2 Ag (220°C±5°C)</b>	10
<b>ADHESION:</b> (90° pull, 2.0 mm x 2.0 mm pads, 62 Sn/36 Pb/2 Ag)	
<b>Initial pull strength:</b>	≥ 70 N
<b>Aged 48 hours at 150°C:</b>	≥ 60 N
<b>ULTRASONIC WIRE BOND:</b>	
(25 µm Al wire)	6.0-6.2 g
(Aged 48 hours at 150°C)	4.5-5.0 g
<b>THERMOSONIC WIRE BOND:</b>	
(25 µm Au wire)	5.5-6.5 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 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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