



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

CERMET SILVER PALLADIUM CONDUCTOR

9695

ESL 9695 is a screen printable palladium silver conductor material featuring low-cost, excellent adhesion, good solderability, and high conductivity. ESL 9695 has a wide firing range, (625°C to 930°C), and can be used on porcelain enameled steel substrates as well as alumina.

PASTE DATA

RHEOLOGY:	Thixotropic, screen printable paste
VISCOSITY: (Brookfield RVT, ABZ Spindle, 10 rpm, 25.5°C±0.5°C)	225±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
FIRING RANGE:	625°C-930°C
OPTIMUM: (On alumina):	850°C
(On PES):	625°C
TIME AT PEAK:	10-12 minutes
RATE OF ASCENT/DESCENT:	60°C-100°C/minute
SUBSTRATE OF CALIBRATION:	96% alumina
THINNER:	ESL 401

9695 9801-E

ESL Affiliates

Japan: ESL-Nippon Company, Ltd. • Sukegawa Bldg. • 6th 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

FIRED THICKNESS:		12.5±2.5 µm
APPROXIMATE COVERAGE:		75-100 cm ² /g
RESISTIVITY:		2-8 mΩ/sq.
PRINTING RESOLUTION: (Line/Space)		250 µm x 250 µm
SOLDER WETTABILITY:		
(RMA flux, 5 sec, dip)	62 Sn/36 Pb/2 Ag, 220°C±5°C	excellent
	63 Sn/37 Pb, 250°C±5°C	good
SOLDER LEACH:		
(No. of 10 sec. dips to double the resistance of 0.25 mm wide x 100 mm long conductor, 62 Sn/36 Pb/2 Ag, 220°C±5°C)		2-5 dips
ADHESION:		
(90° pull, 2.0 mm x 2.0 mm pads, 62 Sn/36 Pb/2 Ag)		
	Initial pull strength:	50-60 N
	Aged 48 hours at 150°C:	20-40 N
ULTRASONIC WIRE BOND:		
(25 µm Al wire)		8-10 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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