



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 SILVER/PLATINUM CONDUCTOR 9595-A

ESL 9595-A is a silver platinum conductor that exhibits excellent adhesion, solderability, and oxidation resistance. This conductor can be used on glass or porcelain enamelled steel. It is compatible with other ESL products suitable for use on the same substrates.

PASTE DATA

Rheology:	Thixotropic, screen-printable paste
Viscosity: (Brookfield RVT, 10 rpm, ABZ spindle, 25.5 ± 0.5 °C)	260 ± 30 Pa.s
Bonding Mechanism:	Mixed-bonded
Shelf Life (20 - 25 °C):	6 months

PROCESSING

Screen Mesh, Emulsion:	325 S/S, 25 µm
Levelling Time (at 20°C):	5 - 10 min
Drying Time (at 125°C):	10 - 15 min
Firing Temperature Range:	600 - 930°C (in air) Optimum: (for PES/glass) 625°C Optimum: (for alumina) 930°C Time at peak: 10 - 12 min
Rate of Ascent/Descent:	60 - 100°C / min
Substrate for Calibration:	96% alumina
Thinner:	ESL 401

ESL Europe (KOP) 9595-A 9801-A

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: 10 - 15 μm
(at least 2 layers 96% alumina)

Resistivity: $\leq 10 \text{ m}\Omega/\square$

Printing Resolution: 0.125 mm / 0.125 mm
(line/space)

Solder Wettability:
(RMA Flux, 5 sec. dip, 62Sn/36Pb/2Ag, 220°C) Good
(RMA Flux, 5 sec. dip, 95Sn/5Ag, 260°C) Good

Solder Leach:
(No. of 10 sec. dips to double lowest resistance of
100 mm x 0.25 mm conductor, 62Sn/36Pb/2Ag, 220°C) ≥ 2 dips

Adhesion:
(90° Pull, 2 mm x 2 mm pads, 62Sn/36Pb/2Ag)

Initial pull strength: $\geq 4.5 \text{ kg}$
Aged 48 hours at 150°C: $\geq 2.5 \text{ kg}$

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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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