



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/PALLADIUM CONDUCTOR 9635-B

ESL 9635-B is a general-purpose silver/palladium conductor that is used as the conductor termination in the calibration of ESL standard 850°C firing cermet resistors.

PASTE DATA

Rheology:	Thixotropic, screen-printable paste
Viscosity: (Brookfield RVT, 10rpm, ABZ Spindle, 25.5 ± 0.5 °C)	325 ± 25 Pa.s
Bonding Mechanism:	Mixed-bonded
Shelf Life (20 - 25 °C):	6 months

PROCESSING

Screen Mesh, Emulsion:	325 S/S, 20 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 401

ESL Europe 9635-B 9303-C

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

See Caution and Disclaimer on other side.

TYPICAL PROPERTIES

Fired Thickness: 12.5 ± 2.5 µm
(measured on a 2 mm x 2 mm pad on 96% alumina)

Approximate Coverage: 90 - 110 cm²/g

Resistivity: 20 - 40 mΩ/□
(measured on a 100 mm x 0.25 mm conductor track)

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

Solder Wettability: 95 - 100 %
(RMA Flux, 5 sec. dip, 62Sn/36Pb/2Ag, 220°C)
After re-fire (850°C) 90 - 100 %

Solder Leach: >5 dips
(No. of 10 sec. dips to double lowest resistance of
100 mm x 0.25 mm conductor, 62Sn/36Pb/2Ag, 220°C)

Adhesion:
(90° pull, 2 mm x 2 mm pads, 62Sn/36Pb/2Ag)
Initial pull strength: 6.4 - 8.0 kg
Aged 48 hours at 150°C: 3.2 - 6.0 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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