



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/PALADIUM CONDUCTOR 9633-T

For use on AlN Substrates

ESL 9633-T is a high performance conductor specially formulated for use on aluminium nitride substrates. It exhibits good adhesion, very good solderability, leach resistance, and silver migration resistance.

PASTE DATA

Rheology:	Thixotropic screen-printable paste
Viscosity: (Brookfield RVT, 10rpm, ABZ Spindle, 25.5 ± 0.5 °C)	275 ± 25 Pa.s
Bonding Mechanism:	Mixed
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:	850 - 930 °C
	Optimum: 850 °C
	Time at peak: 10 - 12 min
Rate of Ascent/Descent:	60 - 100°C / min
Substrate for Calibration:	aluminium nitride
Thinner:	ESL 401

ESL Europe (KOP) 9633-T 0904-New

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 page 2.

TYPICAL PROPERTIES

Fired Thickness: (2 mm x 2 mm pad)	10 - 15 µm
Approximate Coverage:	75 - 100 cm ² /g
Resistivity: (at 12.5 µm fired thickness)	≤ 50 mΩ/sq.
Printing Resolution: (line/space)	0.250 mm / 0.250 mm
Solder Wettability: (RMA Flux, 5 sec. dip 62Sn/36Pb/2Ag, 220°C)	Very 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)	> 8 dips
Adhesion: (90° pull, 2 mm x 2 mm pads, 62Sn/36Pb/2Ag, 220°C)	
	Initial pull strength: > 7.5 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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