



ESL ELECTROSCIENCE

CERAMIC TAPES &
THICK-FILM MATERIALS

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CERMET SILVER/PALLADIUM CONDUCTOR

9695 Steel

Cadmium-Free

ESL 9695 Steel is a low-cost silver/palladium conductor. It can be directly printed onto oxidised ferritic stainless steel substrates making it useful as an 'earth strap' for automotive circuits printed on insulated stainless steel. A typical system consists of ESL 4924 dielectric, 9695 Steel and ESL 3910.

PASTE DATA

Rheology:	Thixotropic, screen-printable paste
Viscosity: (Brookfield RVT, 10rpm, ABZ Spindle, 25.5 ± 0.5 °C)	225 ± 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:	625 - 930°C in air
	Optimum: 850°C
	Time at peak: 10 min
Total Firing Cycle:	1 hour
Substrate for Calibration:	96% alumina
Thinner:	ESL 401

ESL Europe 9695 Steel 0207-B

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See Caution and Disclaimer on other side.

TYPICAL PROPERTIES

Fired Thickness: (measured on a 2 mm x 2 mm pad on 96% alumina)	12.5 ± 2.5 µm
Approximate Coverage:	90 - 110 cm ² /g
Resistivity: (measured on a 408.5 mm x 0.5 mm resistor track with ESL 9695 terminations over ESL 4924 glaze : 18 ± 1 µm dried thickness)	3 - 8 mΩ/□

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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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