



ESL ELECTROSCIENCE

CERAMIC TAPES &
THICK-FILM MATERIALS

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CERMET SILVER/PALLADIUM CONDUCTOR 9695-TP

RoHS Compliant*

ESL 9695-TP is a low-cost, high-conductivity, thick-print silver / palladium conductor for use on alumina.

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-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 - 930°C in air Optimum on PES: 625°C Optimum on alumina: 850°C Time at peak: 10 min
Total Firing Cycle:	1 hour
Substrate for Calibration:	96% alumina
Thinner:	ESL 401

ESL Europe 9695-TP 0702-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)	17 ± 3 µm
Approximate Coverage:	90 cm ² /g
Resistivity: (measured on a 100 mm x 0.25 mm conductor track)	≤ 4 mΩ/□
Printing Resolution: (line/space)	0.125 mm / 0.125 mm
Solder Wettability: (RMA Flux, 5 sec. dip, 62Sn/36Pb/2Ag, 220°C)	100 %
Solder Leach: (No. of 10 sec. dips to double lowest resistance of 100 mm x 0.25 mm conductor, 62Sn/36Pb/2Ag at 220°C)	≥ 5 dips
Adhesion: (90° Pull, 2 mm x 2 mm pads, 62Sn/36Pb/2Ag)	
	Initial pull strength: ≥ 6.4 kg
	Aged 48 hours at 150°C: ≥ 3.5 kg

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*None of the six substances referred to in the RoHS Directive (2002/95/EC) are used in the formulation of this product.

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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