



ESL ELECTROSCIENCE

CERAMIC TAPES &
THICK-FILM MATERIALS

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CERMET SILVER/PALLADIUM CONDUCTOR 9695-P

9695-P is a low-cost, high-conductivity silver/palladium conductor for use in potentiometer applications. This conductor exhibits excellent wear characteristics, solderability and adhesion. 9695-P may be used as a termination for all ESL and many commercially available 850°C firing resistor systems. It has a wide firing temperature range.

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-P 0212-A

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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: 3 - 8 mΩ/□
(measured on a 100 mm x 0.25 mm conductor track at 12.5 µm fired thickness)

Printing Resolution: 0.100 mm / 0.100 mm
(line/space)

Solder Wettability: 95 - 100%
(RMA flux, 5 sec. dip, 62Sn/36Pb/2Ag at 220°C)

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

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

Initial pull strength: 6.4 - 11.0 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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