



ESL ELECTRO-SCIENCE

CERAMIC TAPES &
THICK-FILM MATERIALS

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POLYMER SILVER CONDUCTOR

19101

RoHS Compliant* High Temperature Conductor

ESL 19101 is a high-temperature, low-resistivity silver polymer conductor, that provides very good adhesion and thermal stability. It is designed for use as conductor traces and resistor terminations. This paste can be blended with ESL 15501 Resistor Paste to achieve intermediate resistance values on glass, ceramic and polyimide film substrates. ESL 19101 can also be used on ESL 14401 and 14402-A and 14404 polymer dielectric on metal substrates.

Please review the Application Note: Polyimide Thick Film Materials before using this product.

PASTE DATA

RHEOLOGY:	Thixotropic, screen-printable paste
VISCOSITY: (Brookfield RVT, ABZ spindle, 10 rpm, 25.5°C ± 0.5°C)	100 ± 10 Pa·s
SHELF LIFE: (at 0°C)	3 months
(at -18°C)	12 months

PROCESSING

SCREEN MESH / EMULSION:	200 / 20-30 µm
LEVELING TIME: (25°C)	5-10 minutes
DRYING at 125°C:	10-15 minutes
CURING CYCLE:	320°C / 150 minutes (10-15°C/min. rise)
SUBSTRATE OF CALIBRATION:	glass
THINNER	ESL 455

19101 1401-B

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See Caution and Disclaimer on other side.

TYPICAL PROPERTIES

CURED THICKNESS:	8-14 μm
RESISTIVITY: (12 μm cured thickness)	8 - 16 $\text{m}\Omega/\text{sq.}$
TCR: (25 - 250°C)	2950 ppm/°C to 3250 ppm/°C
RESISTIVITY STABILITY: (16 hrs. at 250°C)	$\leq 5\%$
COMPATIBLE MATERIALS:	ESL 14401 Dielectric

19101 1401-B

* Complies with RoHS, ELV, WEEE and CHIP 3 EC directives.

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 vapors 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.

DISCLAIMER: The product information and recommendations contained herein are based on data obtained by tests we believe to be accurate, but the accuracy and completeness thereof is not guaranteed. No warranty is expressed or implied regarding the accuracy of these data, the results obtained from the use hereof, or that any such use will not infringe any patent. Electro-Science assumes no liability for any injury, loss, or damage, direct or consequential arising out of its use by others. This information is furnished upon the condition that the person receiving it shall make their own tests to determine the suitability thereof for their particular use, before using it. User assumes all risk and liability whatsoever in connection with their intended use. Electro-Science's only obligation shall be to replace such quantity of the product proved defective.
