



ESL ELECTROSCIENCE

CERAMIC TAPES &
THICK-FILM MATERIALS

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POLYMER SILVER CONDUCTOR

1901-SB

RoHS Compliant*

Polymer Silver For Low Temperature Substrates

ESL 1901-SB is a silver-filled, flexible resin material designed for use as a conductor on low-temperature substrates. This silver conductor may be used in the manufacture of four and five wire analogue resistive touch panels, for printed antennas in RFID applications and as conductors in flexible solar cells. After screen-printing and curing the silver film remains reasonably flexible, resistant to corrosion and the resistance of the conductor remains constant over time. This versatile polymer has also been successfully used on other substrates such as cloth.

PASTE DATA

Rheology:

Thixotropic, screen-printable paste

Viscosity:

(Brookfield RVT, 1 rpm,
No. 6 spindle, 25.5 ± 0.5 °C)

30 ± 10 Pa.s

Shelf Life (at 5 - 25 °C):

6 months

PROCESSING

Screen Mesh, Emulsion:

200 or 325 S/S, 25 µm

Curing Schedule:

125°C / 10 min

Substrate for Calibration:

PVC plastic card

Thinner:

ESL 659

ESL Europe 1901-SB 1003-B

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See Caution and Disclaimer on other side.

TYPICAL PROPERTIES

Cured Thickness:

(measured on a 100 mm x 0.25 mm conductor track)

25 - 35 μm

Approximate Coverage:

100 cm^2/g

Resistivity:

(measured on a 100 mm x 0.25 mm conductor track)

< 20 $\text{m}\Omega/\square$

Storage at 60 °C / 85% relative humidity for 24 hours

No change in resistivity

Printing Resolution:

(line/space)

0.25 mm / 0.25 mm

ESL Europe 1901-SB 1003-B

*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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