ESL ELECTROSCIENCE
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POLYMER SILVER / SILVER CHLORIDE CONDUCTOR

1902

RoHS Compliant*

ESL 1902 is a 65:35 silver / silver chloride-filled, flexible resin material designed for use as an electrode in electrochemical sensors in various biomedical applications. This composition is a high solids screen printable silver conductor that may be used on various plastic/flexible or regular rigid substrates such as polyester, paper, ABS, FR4 or alumina.

PASTE DATA

Rheology:	Thixotropic, screen-printable paste
Viscosity: (Brookfield RVT, 10 rpm, No. 6 spindle, 25.5 ± 0.5 °C)	35 ± 15 Pa.s
Solids:	84 - 86 %
Storage & Shelf Life: In tightly sealed black jars in a stable environment at < 25°C	6 months

PROCESSING

Mix thoroughly with a plastic spatula before use.

Screen Mesh, Emulsion:	200 or 325 polyester, 25 µm
Levelling Time (at 20°C):	5 - 10 min
Drying Time (at 125°C):	10 - 15 min
Curing Schedule:	125°C / 3 - 5 min
Substrate for Calibration:	Flexible PVC Card
Thinner:	ESL 117

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TYPICAL PROPERTIES

Cured Thickness: (measured on a 2 mm x 2 mm pad on 96% alumina)	30 ± 5 µm
Approximate Coverage:	60 cm^2 / g
Resistivity: (measured on a 100 mm x 0.25 mm conductor track)	< 100 mΩ / □

***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.