



# Electro-Science Laboratories, Inc.

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## POLYMER SILVER CONDUCTOR

**1107-S**  
**1107-SA**

ESL 1107-S is a phenolic based, silver filled, thermosetting conductive polymer that exhibits a very smooth surface. It can be nickel plated by electroless techniques to enhance solder leach resistance and solderability.

ESL 1107-SA is a lower viscosity version intended for applications requiring the metalization of through-holes.

## PASTE DATA

<b>RHEOLOGY:</b>	Thixotropic, screen printable paste	
<b>VISCOSITY:</b> (Brookfield RVT, ABZ Spindle, 10 rpm, 25.5°C±0.5°C)	<b>1107-S</b>	60-100 Pa·s
(Brookfield RVT, Spindle #6, 10 rpm, 25.5°C±0.5°C)	<b>1107-SA</b>	23.5-27.5 Pa·s
<b>SHELF LIFE:</b> (Material will dry when in contact with air. Refrigerated storage is recommended)		6 months

## PROCESSING (1107-S)

<b>SCREEN MESH/EMULSION:</b>	200-325/25 µm
<b>LEVELING TIME: (25°C)</b>	5-10 minutes
<b>DRYING AT 125°C:</b>	10-15 minutes
<b>CURING RANGE:</b>	
<b>IR Furnace at 220°C peak</b>	3-4 minutes
<b>Ventilated box oven at 150°C</b>	2 hours
<b>SUBSTRATE OF CALIBRATION:</b>	96% alumina
<b>THINNER:</b>	ESL 402

1107-S/SA 9807-G

### ESL Affiliates

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See Caution and Disclaimer on other side.

## TYPICAL PROPERTIES (1107-S)

<b>CURED THICKNESS:</b>	25±7 µm
<b>APPROXIMATE COVERAGE:</b> (at 15 µm)	150 cm <sup>2</sup> /g
<b>RESISTIVITY:</b>	≤40 mΩ/sq.
<b>PRINTING RESOLUTION:</b> (Line/Space)	250 µm x 250 µm
<b>SOLDER WETTABILITY:</b> (RMA flux, 2 sec. dip, 62 Sn/36 Pb/2 Ag, 220°C±5°C)	very good to excellent
<b>COMPATIBILITY:</b>	240-SB Polymer

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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 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.

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