POLYMER CONDUCTIVE SILVER

ESL 1109-S is a silver filled thermosetting phenolic resin material designed for use as a conductive coating, electrical contact, termination, or adhesive. It exhibits excellent adhesion to metal, glass, ceramic and most plastic surfaces. ESL 1109-S is used for screening conductive paths on printed circuit board materials and can be used as terminations for polymer resistors. It can be used for mounting silicon chips, monolithic capacitors and chip resistors onto circuits, and is non-corrosive to aluminum wire bonds. ESL 1109-S can be electroless nickel plated for solderability.

PASTE DATA

RHEOLOGY

Thixotropic, screen printable paste

VISCOSITY:

(Brookfield RVT, ABZ Spindle, 10 rpm, 25.5°C±0.5°C) 150±25 Pa.s

SHELF LIFE:

(Material will harden when in contact with air. Refrigerated storage is recommended) 6 months

PROCESSING

SCREEN MESH/EMULSION: 200/25 µm

LEVELING TIME: (25°C) 5-10 minutes

DRYING AT 125°C: 10-15 minutes

CURING RANGE: 150°C-220°C

OPTIMUM: 150°C

CURING TIME: 2 hours

SUBSTRATE OF CALIBRATION: alumina

THINNER: ESL 402
**TYPICAL PROPERTIES**

**CURED THICKNESS:**  
25-75 µm

**RESISTIVITY:**  
< 50 mΩ/sq.

**SOLDER WETTABILITY:** (RMA flux, 2 sec. dip or wave solder)  
(62 Sn/36 Pb/2 Ag, 220°C±5°C)  
Good

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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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