

# Electro-Science Laboratories, Inc.

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# POLYMER CONDUCTIVE SILVER

1109-S

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 Pas

SHELF LIFE:

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

#### **PROCESSING**

SCREEN MESH/EMULSION: 200/25  $\mu m$  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

1109-S 9806-C

## **TYPICAL PROPERTIES**

**CURED THICKNESS:** 25-75 μm

**RESISTIVITY:**  $< 50 \text{ m}\Omega/\text{sq}.$ 

**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.

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