CERMET SILVER CONDUCTOR

ESL 599-G conductive paste offers versatility and superior performance in many applications. It exhibits excellent adhesion and high conductivity. ESL 599-G may be processed at temperatures as low as 530°C.

Suitable substrates include aluminum, various ceramics, porcelain enameled steel, soda-lime and other glass substrates.

PASTE DATA

RHEOLOGY: Thixotropic, screen printable paste

VISCOSITY: (Brookfield RVT, ABZ Spindle, 10 rpm, 25.5°C±0.5°C) 200±50 Pa•s

BONDING MECHANISM: Fritted

SHELF LIFE: (25°C) 6 months

PROCESSING

SCREEN MESH/EMULSION: 325/25 μm

LEVELING TIME: (25°C) 5-10 minutes

DRYING AT 125°C: 10-15 minutes
*Complies with RoHS, ELV, WEEE and CHIP 3 EC directives

**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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**FIRING RANGE:** 530°C-580°C

**OPTIMUM PEAK TEMPERATURE/TIME AT PEAK:** 580°C/10-15 min

**TOTAL CYCLE TIME:** 60 minutes

**SUBSTRATE OF CALIBRATION:** glass

**THINNER:** ESL 401

**TYPICAL PROPERTIES**

**Fired Thickness:** 12.5±2.5 μm

**Resistivity:** ≤ 10 mΩ/sq.

**Printing Resolution:**
(Line/Space) 125 μm x 125 μm

**Solder Wettability:**
(RMA flux, 5 sec. dip) 62Sn/36Pb/2Ag, 220°C±5°C excellent

**Adhesion:**
(90° pull, 2.5 mm x 2.5 mm pads, 62Sn/36Pb/2Ag)

  **Initial pull strength:** ≥ 10 N