CERMET SILVER CONDUCTOR

ESL 9912-THP is a mixed bonded silver paste especially developed for through-hole printing. The recommended firing temperature on 96% alumina is 850°C. This material also exhibits excellent solderability and solder leach resistance with 62 Sn/36 Pb/2 Ag solder on alumina.

PASTE DATA

RHEOLOGY: Thixotropic, screen printable paste

VISCOITY:
(Brookfield RVT, ABZ Spindle, 10 rpm, 25.5°C±0.5°C) 45-55 Pa·s

BONDING MECHANISM: Mixed bonded

SHELF LIFE: (25°C) 6 months

PROCESSING

SCREEN MESH/EMULSION: 325/25 μm

LEVELING TIME (25°C): 5-10 minutes

DRYING AT 125°C:

FIRING TEMPERATURE:

TIME AT PEAK:

RATE OF ASCENT/DESCENT:

SUBSTRATE OF CALIBRATION:

THINNER:

ESL 401

TYPICAL PROPERTIES

FIRED THICKNESS:

8-12 μm

9912-THP 9702-B
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 thereof, 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.

### Approximate Coverage:
75-100 cm²/gram

### Resistivity:
1-3 mΩ/square

### Printing Resolution:
(Line/Space) 250 μm x 250 μm

### Solder Wettability:
(RMA flux, 5 sec. dip, 62 Sn/36 Pb/2 Ag, 220°C±5°C) good - very good

### Solder Leach:
(Number of 10 sec. dips to double the resistance of a 0.25 mm wide x 100 mm long conductor, in 62 Sn/36 Pb/2 Ag solder, 220°C±5°C) 5-8

### Adhesion:
(90° pull, 2.0 mm x 2.0 mm pads, 62 Sn/36 Pb/2 Ag solder, 220°C±5°C)

- **Initial pull strength:** 60-90 N
- **Aged 48 hours:** 60-80 N