



ESL ELECTROSCIENCE

CERAMIC TAPES &
THICK-FILM MATERIALS

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CERMET SILVER CONDUCTOR

9912-K LS

RoHS Compliant and Nickel-Free*
Excellent Fine-Line Capability • Acid resistant

ESL 9912-K LS is an economic fine-line printing silver conductor having a wide range of applications, for example chip resistors, consumer hybrids, potentiometers and heaters. It exhibits excellent line resolution printing 75 micrometer wide lines.

PASTE DATA

Rheology:	Thixotropic, screen-printable paste
Viscosity: (Brookfield RVT, 10rpm, ABZ Spindle, 25.5 ± 0.5 °C)	500 ± 50 Pa.s
Bonding Mechanism:	fritted
Shelf Life (20 - 25 °C):	6 months

PROCESSING

Screen Mesh, Emulsion:	325 S/S, 25 µm
Levelling Time (at 20°C):	5 - 10 min
Drying Time (at 125°C):	10 - 15 min
Firing Temperature Range:	
Optimum:	850°C in air
Time at peak:	10 min
Total Firing Cycle:	1 hour
Substrate for Calibration:	96% alumina
Thinner:	ESL 401

(Note: furnace air must be clean, dry and oil-free)

ESL Europe 9912-K LS 1209-A

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See Caution and Disclaimer on other side.

TYPICAL PROPERTIES

(measurement on alumina after firing at 850°C)

Fired Thickness:

(measured on a 2 mm x 2 mm pad on 96% alumina)

5.5 ± 1.5 µm

Approximate Coverage:

100 - 125 cm²/g

Resistivity:

(measured on a 100 mm x 0.25 mm conductor track
at 9 µm fired thickness)

< 2.5 mΩ/□

Printing Resolution:

(line/space)

0.075 mm / 0.075 mm

Solder Wettability:

(Soldering only after nickel electroplating)

(RMA flux, 5 sec. dip, (62Sn/36Pb/2Ag, 220 °C)

100 %

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*None of the six substances referred to in the RoHS Directive (2002/95/EC) are used in the formulation of this product.

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 vapours 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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