CERMET SILVER/PALLADIUM CONDUCTOR 9635-HG

Cadmium, Lead & Nickel-Free*

ESL 9635-HG is a general-purpose silver/palladium conductor that may be used on 96% alumina substrates and on dielectric. The 9635-HG exhibits excellent solderability when used on alumina or over various ESL dielectrics. It is also suitable for large-diameter aluminium wire bonding.

PASTE DATA

Rheology: Thixotropic, screen-printable paste

Viscosity:
(Brookfield RVT, 10rpm,
ABZ Spindle, 25.5 ± 0.5 ºC) 325 ± 25 Pa.s

Bonding Mechanism: Mixed-bonded

Shelf Life (20 - 25 ºC): 6 months

PROCESSING

Screen Mesh, Emulsion: 325 S/S, 20 µm

Levelling Time (at 20ºC): 5 - 10 min

Drying Time (at 125ºC): 10 - 15 min

Firing Temperature Range:
Optimum: 850 - 1000ºC in air
Time at peak: 850ºC

Total Firing Cycle: 1 hour

Substrate for Calibration: 96% alumina

Thinner: ESL 401

* See Caution and Disclaimer on other side.
TYPICAL PROPERTIES

Fired Thickness: 11.5 ± 2.5 µm
(measured on a 2 mm x 2 mm pad on 96% alumina)

Approximate Coverage: 90 - 110 cm²/g

 Resistivity: <20 mΩ/□
(measured on a 100 mm x 0.25 mm conductor track at 12.5 µm fired thickness)

Printing Resolution: 0.125 mm / 0.125 mm
(line/space)

Solder Wettability: 95 - 100 %
(No. of 10 sec. dips to double lowest resistance of on 96% alumina)
100 mm x 0.25 mm conductor, 95.5Sn/3.8Ag/0.7Cu at 250°C)

Solder Leach: > 1 dip
(No. of 10 sec. dips to double lowest resistance of on 96% alumina)
100 mm x 0.25 mm conductor, 95.5Sn/3.8Ag/0.7Cu at 250°C)

Adhesion: > 6.0 kg
(90° pull, 2 mm x 2 mm pads, 95.5Sn/3.8Ag/0.7Cu)

Ultrasonic Al Wire Bond: > 1600 g
(500 µm wire; bond length 4 mm)

Aged Al Wire Bond: > 1400 g
(1 hour at 300°C)

*Complies with RoHS, ELV, WEEE and CHIP 3 EC directives.

CAUTION: Proper industrial safety precautions should be exercised in using the 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 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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