ESL ELECTROSCIENCE
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CERMET SILVER CONDUCTOR 9912-THP

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
Viscosity: (Brookfield RVT, 10rpm, ABZ Spindle, 25.5 ± 0.5 °C)		44 - 55 Pa.s
Bonding Mechanism:		Mixed-bonded
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:	Optimum: Time at peak:	850 °C 10 - 12 min
Rate of Ascent/Descent:		60 - 100°C / min
Substrate for Calibration:		ESL 41010
Thinner:		ESL 401

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See Caution and Disclaimer on page 2.

TYPICAL PROPERTIES

Fired Thickness:	8 - 12 µm
Approximate Coverage:	75 - 100 cm²/g
Resistivity:	1 - 3 mΩ/sq.
Printing Resolution: (line/space)	0.250 mm / 0.250 mm
Solder Wettability: (RMA Flux, 5 sec. dip 62Sn/36Pb/2Ag, 220°C)	Good - Very good
Solder Leach: (No. of 10 sec. dips to double lowest resistance of 100 mm x 0.25 mm conductor, 62Sn/36Pb/2Ag, 220°C)	5 - 8 dips

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

Initial pull strength:	6 - 9 kg
Aged 48 hours at 150°C:	6 - 8 kg