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CERMET SILVER CONDUCTOR

9912-F

ESL 9912-F is a conductor specially formulated for use with ESL Resistors. ESL 9912-F exhibits excellent solderability and adhesion, good leach resistance, and good wirebonding characteristics with both gold and aluminum wire.

PASTE DATA

RHEOLOGY:	Thixotropic, screen printable paste
VISCOSITY: (Brookfield RVT, ABZ Spindle, 10 rpm, 25.5°C±0.5°C)	200±25 Pa·s
BONDING MECHANISM:	Mixed
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
FIRING TEMPERATURE RANGE:	750°C-930°C
OPTIMUM:	850°C
TIME AT PEAK:	10-12 minutes
RATE OF ASCENT/DESCENT:	60°C-100°C/minute
SUBSTRATE OF CALIBRATION:	96% alumina
THINNER:	ESL 401

TYPICAL PROPERTIES

THICKNESS:	10-15 µm
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9912-F 9710-A

ESL Affiliates

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See Caution and Disclaimer on other side.

APPROXIMATE COVERAGE:	75-125 cm ² /gram
RESISTIVITY:	1.5-2.0 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)	Excellent
SOLDER LEACH: (No. of 10 sec. dips to double the resistance of 0.25 mm wide x 100 mm long conductor 62 Sn/36 Pb/2 Ag, 220°C±5°C)	5-7
ADHESION: (90° pull, 2.0 x 2.0 mm pads, 62 Sn/36 Pb/2 Ag, 220°C±5°C)	
Initial Pull Strength:	≥ 60 N
Aged 48 hours at 150°C:	≥ 50 N
ULTRASONIC WIRE BOND:	
Pull strength with 25 μm Al wire	11-12 grams
THERMOSONIC WIRE BOND:	
Pull strength with 25 μm Au wire	8-10 grams
NOTE:	For migration resistance overglaze with 4904

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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.

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