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CERMET PALLADIUM SILVER CONDUCTOR

9638

ESL 9638 is a palladium silver conductor specially designed for use as an electrode for ESL 4113-H and 4117 capacitor dielectrics. In comparison to other thick film palladium silver conductors, ESL 9638 is designed to provide the highest dielectric constants (K) possible for the 4100 Series dielectrics.

PASTE DATA

RHEOLOGY:	Thixotropic, screen printable paste
VISCOSITY: (Brookfield RVT, ABZ Spindle, 10 rpm, 25.5°C±0.5°C)	300±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 RANGE:	930°C-980°C
OPTIMUM:	980°C
TIME AT PEAK:	10-12 minutes
RATE OF ASCENT/DESCENT:	60°C-100°C/minute
SUBSTRATE OF CALIBRATION:	96% alumina with 4113-H
THINNER:	ESL 401

9638 9810-C

ESL Affiliates

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See Caution and Disclaimer on other side.

TYPICAL PROPERTIES

FIRED THICKNESS:	11.5±1.5 µm
APPROXIMATE COVERAGE:	65-75 cm ² /sq.
RESISTIVITY:	15-25 mΩ/sq.
PRINTING RESOLUTION: (Line/Space)	200 µm x 200 µm
SOLDER WETTABILITY: (RMA flux, 5 sec. dip, 62 Sn/36 Pb/2 Ag, 220°C±5°C)	Good
SOLDER LEACH: (No. of 10 sec. dip to double resistance of 0.25 wide x 100 mm long conductor)	
62 Sn/36 Pb/2 Ag, 220°C±5°C:	4-6 dips
ADHESION: (90° pull, 2.0 x 2.0 mm pads, 62 Sn/36 Pb/2 Ag)	
Initial pull strength:	40-60 N
Aged 48 hours at 150°C:	30-50 N

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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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