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CONDUCTIVE ELECTRODE MATERIAL 9916

SILVER BASED CONDUCTOR DESIGNED FOR USE WITH THE D-4150 SERIES AND D-4200-C SERIES OF DIELECTRICS

ESL 9916 is a silver based conductor specially developed for use as an electrode with D-4150 Series and D-4200-C Series of dielectrics. ESL 9916 may also be used with the 4100 Series of dielectrics. When used with ESL D-4150 Series and D-4200-C Series dielectrics, this conductor provides the optimum performance of the systems. The typical properties of these conductors were derived from printing and firing directly on alumina.

PASTE DATA

RHEOLOGY:	Thixotropic, screen printable paste
VISCOSITY: (Brookfield RVT, ABZ Spindle, 10 rpm, 25.5°C±0.5°C)	200±25 Pa•s
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:	850°C-900°C
OPTIMUM:	900°C
TIME AT PEAK:	10 minutes
RATE OF ASCENT/DESCENT:	60°C-100°C/minute
SUBSTRATE OF CALIBRATION:	96% alumina
THINNER:	ESL 401 or 413

9916 9903-New

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See Caution and Disclaimer on other side.

TYPICAL PROPERTIES

FIRED THICKNESS:	12.5±2.5 µm
PRINTING RESOLUTION: (Line/Space)	125 µm/125 µm
RESISTIVITY:	≤ 2.0 mΩ/sq.
SOLDER LEACH: (No. of 10 sec. dips to double resistance of 0.25 mm wide x 100 mm long conductor, 62 Sn/36 Pb/2 Ag, 220°C±5°C)	≥ 7
ADHESION: (90° pull, 2.0 mm x 2.0 mm pads, 62 Sn/36 Pb/2 Ag, 220°C±5°C)	
Initial pull strength:	≥ 80 N
Aged 48 hours at 150°C:	≥ 65 N

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