Electro-Science Laboratories, Inc.
416 East Church Road • King of Prussia, PA 19406-2625, U.S.A
610-272-8000 • Fax: 610-272-6759 • www.ElectroScience.com • Sales@ElectroScience.com

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:	**T**hixotropic, 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

9912-F 9710-A

ESL Affiliates
Japan: ESL-Nippon Company, Ltd. • Sukegawa Bldg. • 6th floor • 3-4 Yanagibashi 1-chome • Taito-ku • Tokyo 111, Japan • Tel: (011-81)-3-3864-8521 • Fax: (011-81)-3-3864-9270
NipponSales@ESLNippon.com
China: Shanghai Agmet Electro-Science Laboratory Ltd. • Second Floor Bldg. 12A1 • #223 North Fe Te Road • Waigaoqiao Free Trade Zone • Shanghai, China
Tel: (011-86)-21-5866-0497 • Fax: (011-86)-21-5866-0497 • ShanghaiSales@ShanghaiESL.com
Europe: Agmet, Ltd. • 8 Commercial Road • Reading, Berkshire, England RG2 0QZ • Tel: (011-44)-118-987-3139 • Fax: (011-44)-118-986-7331 • Sales@ESLEurope.co.uk
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

9912-F 9710-A