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

THE MARKET LEADER – PROVEN RELIABILITY

Over 90% of the World's **HOS™ (Heaters on Steel)** have been made using ESL materials. **Millions** are being used successfully worldwide.

CERMET SILVER/PLATINUM CONDUCTOR for HOS™ (Heaters on Steel) — 9501-CH

The 9501-CH is a low cost, high speed printing silver/platinum conductor material, which exhibits high conductivity and excellent adhesion and solderability. ESL 9501-CH may be used as contact pads for 29XXX Series resistors in HOS™ (Heaters on Steel) applications.

PASTE DATA

RHEOLOGY:	Thixotropic, screen printable paste
VISCOSITY: (Brookfield RVT, 10 rpm, ABZ spindle, 25.5°C±0.5°C)	150±20 Pa·s
BONDING MECHANISM:	Mixed bonded
SHELF LIFE: (20°C)	6 months

PROCESSING

SCREEN MESH/EMULSION:	325/20 µm
LEVELING TIME: (20°C)	10-15 minutes
DRYING AT 125°C:	15 minutes
FIRING TEMPERATURE RANGE: (in air)	850°C-930°C
OPTIMUM:	850°C
TIME AT PEAK TEMPERATURE:	10 minutes

9501-CH 9901-New

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.

RATE OF ASCENT/DESCENT:	50°C-60°C/minute
SUBSTRATE FOR CALIBRATION:	96% alumina
THINNER:	ESL 401

TYPICAL PROPERTIES

FIRED THICKNESS: (measured on a 2.0 mm x 2.0 mm pad on 96% alumina)	10.5±2.5 µm
APPROXIMATE COVERAGE:	60-70 cm^2/g
RESISTIVITY:	2-4 mΩ/sq.
PRINTING RESOLUTION: (Line/Space)	250 µm/250 µm
SOLDER WETTABILITY: (RMA flux, 5 sec. dip, 62 Sn/36 Pb/2 Ag, 220°C±5°C)	95%-100%
SOLDER LEACH: (No. of 10 sec. dips to double resistance of 0.25 mm wide x 100 mm long conductor)	5-10 dips
ADHESION: (90° pull, 2.0 mm x 2.0 mm pads, 62 Sn/36 Pb/2 Ag, 220°C±5°C)	
Initial:	68-88 N
Aged 48 hours at 150°C:	58-88 N