



ESL ELECTROSCIENCE

CERAMIC TAPES &
THICK-FILM MATERIALS

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CERMET NICKEL CONDUCTOR

2552

ESL 2552 is an air-firing nickel conductor designed for use as a cathode in D.C. gas discharge displays. The resistivity of 2552 varies with the firing temperature, and a graph of resistivity versus firing temperature is included on this data sheet. ESL 2552 can also be used for air fireable resistance thermometers and heaters. For solderable contacts, ESL 9901(silver) is recommended.

PASTE DATA

RHEOLOGY:	Thixotropic, screen printable paste
VISCOSITY: (Brookfield RVT, ABZ Spindle, 10 rpm, 25.5°C±0.5°C)	300±25 Pa·s
SHELF LIFE: (25°C)	6 months

PROCESSING

SCREEN MESH/EMULSION:	200/25 µm
LEVELING TIME: (25°C)	5-10 minutes
DRYING AT 125°C:	10-15 minutes
FIRING RANGE:	580°C-825°C
OPTIMUM:	580°C
TIME AT PEAK:	10-12 minutes
RATE OF ASCENT/DESCENT:	60°C-100°C/minute
SUBSTRATES OF CALIBRATION:	soda-lime glass, alumina
THINNER:	ESL 401

ESL Europe (KOP) 2552 0511-New

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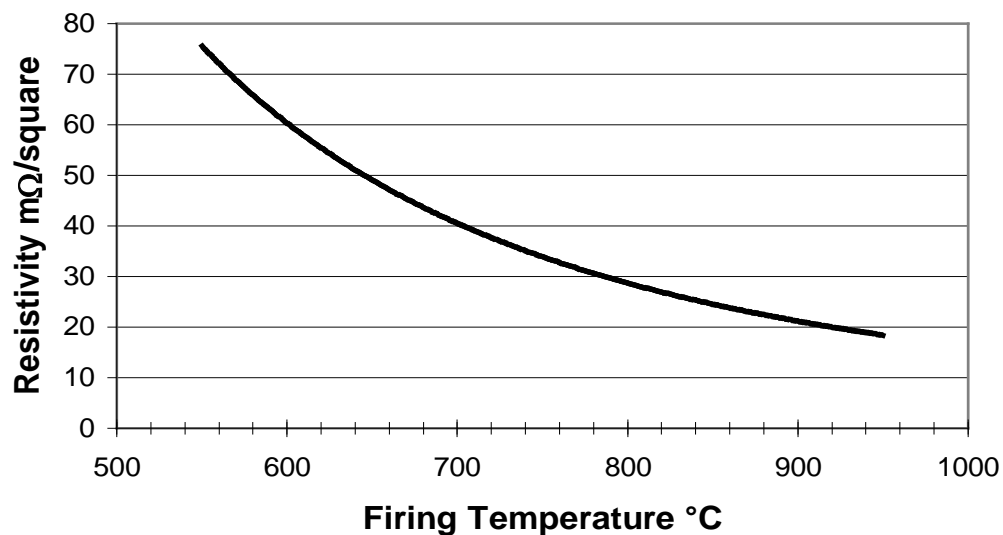
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See Caution and Disclaimer on other side.

TYPICAL PROPERTIES

FIRED THICKNESS:	20±2.5 µm
RESISTIVITY: (Soda-Lime Glass 580°C firing)	≤ 70 mΩ/sq
PRINTING RESOLUTION: (Line/Space)	250 µm/250 µm
ADHESION: (Soldered on overprinted and co-fired 9901) (90°pull, 2.0 mm x 2.0 mm pads, 62 Sn/36 Pb/2 Ag)	
Initial pull strength:	25-30 N
TCR: (25° - 125°C, 625°C firing)	+4800 ppm/°C

Resistivity vs. Firing Temperature



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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 vapours 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.

DISCLAIMER: The product information and recommendations contained herein are based on data obtained by tests we believe to be accurate, but the accuracy and completeness thereof is not guaranteed. No warranty is expressed or implied regarding the accuracy of these data, the results obtained from the use hereof, or that any such use will not infringe any patent. ElectroScience assumes no liability for any injury, loss, or damage, direct or consequential, arising out of its use by others. This information is furnished upon the condition that the person receiving it shall make his own tests to determine the suitability thereof for his particular use, before using it. User assumes all risk and liability whatsoever in connection with his intended use. ElectroScience's only obligation shall be to replace such quantity of the product proved defective.