



ESL ELECTROSCIENCE

CERAMIC TAPES &
THICK-FILM MATERIALS

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SILVER PLATINUM CONDUCTOR

953

Lead-Free, Leach Resistant Conductor for Use as Top or Inner-Layer Electrode With Co-Fire Ceramic Tape

ESL 953 is a platinum silver conductor designed for use with ceramic tapes. It can be used with ESL co-fired tapes such as ESL 41020 and provides good adhesion and solderability. This conductor is not for use on 96% alumina substrates.

PASTE DATA

RHEOLOGY:	Thixotropic, screen printable paste
VISCOSITY: (Brookfield RVT, ABZ Spindle, 10 rpm, 25.5°C±0.5°C)	200±25 Pa•s
BONDING MECHANISM:	Fritted
SHELF LIFE: (at 25°C)	6 months

PROCESSING

SCREEN MESH/EMULSION:	325/25 µm
LEVELING TIME: (25°C)	5-10 minutes
DRYING: (at 80°C)	10-15 minutes
FIRING:	850°C 5°C/minute rise from room temperature to 425°C, soak for one hour then 5°C/minute rise from 425°C to 850°C, soak for 10 minutes, cool naturally
SUBSTRATE OF CALIBRATION:	ESL 41020 (six layers, pre-laminated)
THINNER:	ESL 401

ESL Europe (KOP) 953 0403-New

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See Caution and Disclaimer on other side.

TYPICAL PROPERTIES

FIRED THICKNESS (line)	25 ± 3 µm
RESISTIVITY: (when co-fired with ESL 41020 tape)	≤ 6 mΩ/sq.
PRINTING RESOLUTION: (Line/Space)	250 µm x 250 µm
ADHESION: (2mm x 2mm pads)	≥ 20 N
SOLDERABILITY:	good

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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.

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