POLYMER RESISTOR

For High Temperature Applications

ESL 15501 is a high temperature resistor designed for use on glass, ceramic, flexible polyimide film, insulated aluminum and other metal substrates. When blended with ESL 19101 silver conductor, it provides resistivities in the range of 15 milliohms per square to 35 ohms per square. It can be used with ESL 14401 polymer dielectric when co-cured with the dielectric.

PASTE DATA

RHEOLOGY: Thixotropic, screen printable paste

VISCOITY:
(Brookfield RVT, ABZ Spindle, 10 rpm, 25.5° ± 0.5°C) 130±10 Pa·s

SHELF LIFE: (5°C) 3 months
(-18°C) 6 months

PROCESSING

SCREEN MESH/EMULSION: 200-325/20-30 μm

LEVELING TIME: (25°C) 5-10 minutes

DRYING AT 125°C: 10-15 minutes

CURING CYCLE: 320°C/150 minutes
(10°C-15°C/min. rise)

SUBSTRATE OF CALIBRATION: glass

THINNER: ESL 455
TYPICAL PROPERTIES

CURED THICKNESS: 10-15 μm
RESISTIVITY: (12.5 μm cured thickness) 35-45 Ω/sq.
RESISTIVITY STABILITY: (16 hrs. at 250°C) ≤ 10%
COMPATIBILITY: ESL 14401 Dielectric, ESL 19101 Conductor

Blend Curve, 15501 & 19101

Resistivity, ohms/square

% 15501

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 vapors 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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