CERMET NICKEL CONDUCTOR

Air firing Nickel Conductor

ESL 2554-N-1 and 2554-N3 are air-firing nickel conductors designed for use as a cathode in D.C. gas discharge displays. The nickel pastes have a firing range of 580°C to 625°C with a time at peak temperature of 10 minutes or longer.

PASTE DATA

RHEOLOGY: Thixotropic, screen printable paste
VISCOSITY:
(Brookfield RVT, ABZ Spindle, 10 rpm, 25.5°C±0.5°C) 2554-N-1 225-275 Pa•s
2554-N-3 700-800 Pa•s
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:
OPTIMUM: 580°C
TIME AT PEAK: ≥ 10 minutes
FIRING CYCLE: 3 hours
RATE OF ASCENT/DECENT: 60°C-100°C/minute
SUBSTRATE OF CALIBRATION: soda lime glass
THINNER: ESL 401
TYPICAL PROPERTIES

FIRED THICKNESS: < 40 µm

RESISTIVITY:
(when normalized @ 25 µm & co-fired with 3 layers of M4023-C) 2554-N-1 ≤ 60 mΩ/sq.
2554-N-3 ≤ 60 mΩ/sq.

PRINTING RESOLUTION: 250 µm x 250 µm

DIELECTRIC COMPATIBILITY:
M4023-B
M4023-C
M4024-A