GOLD METALLO-ORGANIC CONDUCTOR 8081-C

Lead, Cadmium, and Nickel-free

ESL 8081-C is a thin printing metallo-organic gold that produces a fired conductive film of less than one-micrometer in thickness. It is economical because of its high coverage. This conductor contains a precious metal composition that decomposes with heat at temperatures above 300°C. Depending on the substrate material, at temperatures near 600°C, a “thin” film with good adhesion to the substrate is formed. The paste can be used on alumina, glazed alumina, borosilicate, and soda-lime substrates. By printing this conductor to the exact pattern desired, it can be used for many conductive purposes in which direct wire bonding or soldering is not required.

PASTE DATA

RHEOLOGY: Thixotropic, screen printable paste
VIS COSITY: (Brookfield RVT, ABZ spindle, 10 rpm, 25.5°C±0.5°C) 50±10 Pa·s
SHELF LIFE: (25°C) 6 months

PROCESSING

SCREEN MESH/EMULSION: 325-400 mesh/0-28 µm
LEVELING TIME: (25°C) 5-10 minutes
DRYING: (125°C) 10-15 minutes
FIRING RANGE: 625°C-850°C

OPTIMUM:

RATE OF ASCENT/DESCENT: 60°C-100°C/minute
SUBSTRATE FOR CALIBRATION: 96% alumina
THINNER: ESL 413
TYPICAL PROPERTIES

FIRED THICKNESS: < 1 µm
RESISTIVITY: < 800 mΩ/sq.

NOTES:

1. Adequate air flow and ventilation to remove the burn-off products is essential or unpleasant odors may accumulate.
2. Thinners are not normally required. ESL 413 may be used sparingly. For screen cleaning, ESL 413, isopropyl alcohol, or acetone may be used.