ESL ELECTROSCIENCE
CERAMIC TAPES & THICK-FILM MATERIALS
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GOLD METALLO- ORGANIC COMPOSITION 8081-D

RoHS Compliant*

ESL 8081-D 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
Viscosity: (Brookfield RVT, 10rpm, No. 5 spindle, 25.5 ± 0.5 °C)	50 ± 10 Pa.s
Shelf Life (20°C):	6 months

PROCESSING

Screen Mesh, Emulsion:		325 - 400 mesh, 0-28 µm
Levelling Time (at 20°C):		5 - 10 min
Drying Time (at 125°C):		10 -15 min
Firing Temperature Range:		625 - 850°C
	Optimum:	850°C
Rate of Ascent/Descent:		60 - 100 °C min
Substrate for Calibration:		96% alumina
Thinner:		ESL 413

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TYPICAL PROPERTIES

Fired Thickness: < 1 µm

Resistivity: < 800 mΩ/□

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, ESL413, isopropyl alcohol or acetone may be used.