



Metalon[®] Conductive Inks for Printed Electronics

www.novacentrix.com

Metalon[®] JG-125

Inkjet Ink – Aqueous-based gold dispersion

JG-125 is an electrically conductive gold nanoparticle ink designed to produce conductive traces on substrates such as paper, PET, glass, and polyimide. **JG-125** ink is specially formulated for inkjet printing and is compatible with a variety of printheads including the FujiFilm Dimatix Samba. The formulation contains a polymeric additive for improved adhesion to a variety of substrates and cured prints are resistant to water and isopropanol. Applications for the ink include general purpose printing as well as biomedical applications, high density interconnects, and fine line printing.

RESISTIVITY - THERMAL PROCESSING			
Cure temperature (°C)	Cure time (minutes)	Volume Resistivity (Ω-cm)	X Bulk Gold
140	30	4.2 E-4	187
175	30	4.0 E-5	18
200	10	2.6 E-5	12
225	5	1.9 E-5	8.4

- Data collected using #10 Meyer Rod on Melinex ST505 and polyimide substrates
- Thermally cured in a convection oven

Resistivity - PulseForge Processing			
Drying temperature (°C)	Drying time (minutes)	Volume Resistivity (Ω-cm)	X Bulk Gold
140	30	< 5.5 E-5	< 25

- Data collected using #10 Meyer Rod on Melinex ST505 substrates

Physical Properties	<p>General Description Water-based Au nanoparticle ink</p> <p>Viscosity 4 – 8 cP</p> <p>Specific Gravity 1.6</p> <p>Flash Point Non-flammable</p> <p>Average dispersed particle size 30-50 nm</p> <p>Au Content 25 wt%</p> <p>(Typical values reported)</p>
Shipping and Packaging	<p>Standard sample order is 3 mL. Inquire directly for packaging of larger quantities.</p> <p>Product should be refrigerated at ~4C for longest shelf life.</p>