



Metalon® Conductive Inks for Printed Electronics

www.novacentrix.com

Metalon® JS-A554

Aerosol Ink – Aqueous-based silver ink

(specifically formulated for printing with the NanoJet from IDS)

JS-A554 is an electrically conductive silver nanoparticle ink designed to produce conductive traces on substrates such as paper, PET, glass, and polyimide. **JS-A554** ink is specially formulated for aerosol printing using ultrasonic atomization with the NanoJet from IDS. The ink contains a polymeric additive for improved adhesion to glass and other substrates. Applications for the ink include high density interconnects and fine line printing.

RESISTIVITY - THERMAL PROCESSING			
Cure temperature (°C)	Cure time (minutes)	Volume Resistivity (Ω -cm)	x Bulk Silver
125	30	110 E-6	70
150	30	26.4 E-6	16.7
175	30	13.5 E-6	8.5
200	30	10.2 E-6	6.5
225	30	8.0 E-6	5.1
250	30	6.3E-6	4.0
275	30	4.2 E-6	2.7

- Data collected from drawdowns on Kapton HN using a #10 Meyer rod.
- Resistivity calculated using an estimated porosity of 25%

ADHESION PERFORMANCE	
SUBSTRATE	Crosshatch Rating
PET	5B
Kapton	5B
Glass	5B

Physical Properties	General Description Water-based Ag nanoparticle ink
	Viscosity 3 - 5 cP
	Specific Gravity 1.3
	Flash Point Non-flammable
	Average dispersed particle size 35 nm
	Ag Content 25% w/w (Typical values reported)
Shipping and Packaging	Standard sample order is 50 mL or multiples of 50 mL. Inquire directly for packaging of larger quantities.

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Contact us today to learn more.

info@novacentrix.com

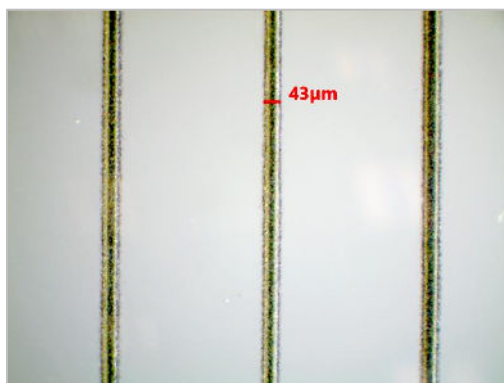
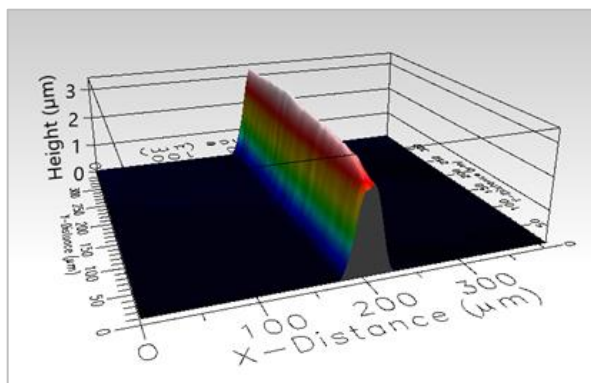


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Parameter	Print Recipe
Printhead	IDS NanoJet Gen2
Substrate and preparation	80°C glass, 5 min. sonication in Acetone followed by 5 min. sonication in IPA
Toolpath	6 mm/s 5 passes per trace
Nozzle	150 μm plastic (IDS 900033) 3 mm standoff
Material	3 ml NovaCentrix Metalon JS-A554, no sheath solvent
Ultrasonic Atomizer	35 V, 26°C
Sheath Gas Flow	45 sccm (focusing ratio of 10)
Aerosol Gas Flow	4.5 sccm
Post Processing	200°C bake for 1 hour