

Xerox® Silver Nanoparticle Piezo Inkjet Ink

PRODUCT CODE: xcm-nsIJ



Xerox silver nanoparticle ink is based on proprietary silver nanoparticles designed and created at the Xerox Research Centre of Canada.

ISO 9001:2015 Certified
Quality Management System

TECHNOLOGY

- Low annealing temperature (80 – 120°C) enabled by small and uniform particles (8 nm ± 2 nm)
- Resistivity up to 3x bulk silver
- Excellent latency, >24 hr in printhead
- Hydrocarbon-based ink vehicle
- Customization available
- Produced at kilo-scale in XRCC pilot plant with consistent lot-to-lot reproductibility

INK CHARACTERISTICS

Viscosity	4 – 7 cps
Surface Tension	25 – 33 mN/m
Ink Vehicle	hydrocarbon
Metal Content	40 – 45 wt %
Particle Size	< 15 nm
Cure (thermal under ambient)	80 – 120 °C

Photonic sintering also available.

MATERIAL PERFORMANCE

Resistivity	3 – 6x bulk Ag
Conductivity	> 9 x 10 ⁴ S·cm ⁻¹
Conductive traces printed using a Dimatix DMP 2800 printer. Printed line widths were 55 – 120 µm and line thicknesses were 60 – 200 nm after cure.	

ENGAGE US

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XEROX RESEARCH CENTRE OF CANADA

The Xerox Research Centre of Canada delivers real-world solutions in electronic materials, sustainable materials, chemical processes, coatings, security and authentication, and novel technologies for the printing, electronics, and manufacturing industries.

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