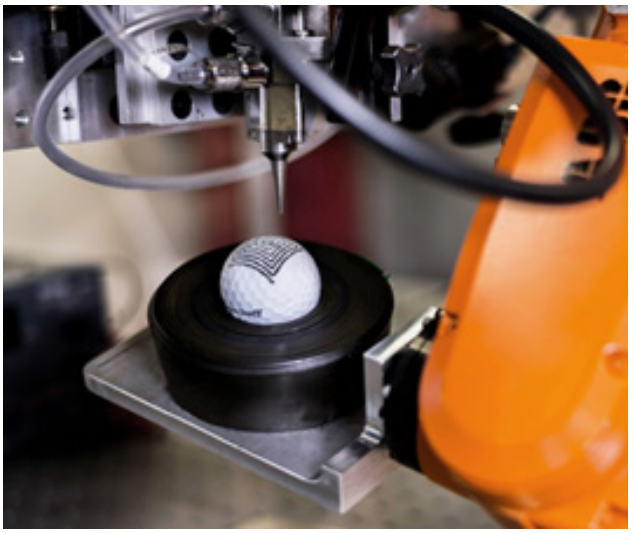
Xerox Silver Nanoparticle Pneumatic Aerosol Jet Ink Product Code: xcm-nsPA

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

Technology

- Low annealing temperature (120 °C) enabled by small and uniform particles (8 nm ± 2 nm)
- Resistivity up to 3x bulk silver
- Compatible with aerosol jettable Xerox dielectric ink (xdi-dcs)
- Customization available
- Produced at kilo-scale in XRCC pilot plant with consistent lot-to-lot reproductibility



Ink Characteristics

Viscosity	tunable
Surface Tension	23 - 32 mN/m
Ink Vehicle	hydrocarbon
Metal Content	tunable
Particle Size	< 20 nm
Cure (thermal under ambient)	120 °C and above

Materials Performance

Resistivity	~3.5 – 4.5x bulk
Conductivity	> 1 x 10^5 S·cm^{-1}

Conductive traces were printed using an Optomec Sprint print system. Printed line widths of 0.5 mm with sintered pile heights of 3 – 7µm were achieved when printed using the following conditions: 1mm round nozzle, 400 sccm sheath gas (N_2), 300 sccm push gas (N_2).

Engage Us

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