



Product Description

PSI-119 is an aqueous screen printable conductor containing PChem's proprietary silver nanoparticles. PSI-119 has been specifically formulated for excellent adhesion while maintaining good resistivity. Minimal cured film thicknesses will also be achieved. This allows equivalent sheet resistances with less material usage compared to competitive inks.

Key Benefits

- Fast curing at low temperatures suitable for reel to reel processing on PET film
- Good conductivity and thin cured film thicknesses for material cost savings
- Good printability, with features less than 4 mil (100 microns) possible
- Good flexibility and crease resistance
- Excellent adhesion to print treated polyester films
- Minimal VOC's
- Easy cleanup with soap and water

Physical Properties

Silver Content (wt%)	40% ($\pm 2\%$)
Density (wet)	1.6 g/ml (13.4 lb/gallon)
Viscosity @10s-1	11,000 cP
Viscosity @1000s-1	600 cP
pH	5.75
Volume Resistivity	19 $\mu\Omega$ -cm (7.5 m Ω /sq/mil)
Printed Sheet Resistance	95 m Ω /sq at 2 micron (typical DFT)
Coverage	40 m ² /kg at 2 micron (typical)
Shelf Life	3 months, >6 months with pH adjustment

Typical Results

- 1.5 – 2.5 μm cured film thickness with high thread count polyester screens.
- <3s cure times with IR heating
- <10s cure times with conductive heating
- 10-60s cure times with 140°C convection (velocity dependent)
- 100°C cures are possible with cure times >1 minute.

Please contact PChem Associates for detailed application information or assistance.