



## PChem® Conductive Inks for Printed Electronics

[www.novacentrix.com](http://www.novacentrix.com)

### PFI-722® Conductive Flexo Ink

#### Product Description

PFI-722 is an aqueous flexo-printable conductive ink containing PChem's proprietary silver nanoparticles. PFI-722 has been specifically formulated for high conductivity, fast curing, fine feature printing, and smooth lay-downs.

#### Key Benefits

- Fast curing at low temperatures suitable for reel to reel processing on PET film
- Print speeds of > 400 FPM have been achieved with in-line IR ovens
- Excellent conductivity and thin cured film thicknesses for material cost savings
- Good printability with features less than 25  $\mu\text{m}$  possible
- Good flexibility and crease resistance
- Good adhesion to print-treated polyester films
- Minimal VOCs
- Easy cleanup with soap and water

#### Physical Properties

Silver Content (wt. %)	60 ( $\pm 2$ )
Density (wet)	2.20 g / mL (18.4 lb / gal)
Viscosity @10s <sup>-1</sup>	300 - 600 cP
Viscosity @1000s <sup>-1</sup>	100 - 200 cP
pH	5.90 $\pm$ 0.05
Volume Resistivity	5 - 7 $\mu\Omega\text{cm}$ (2.0 - 2.8 m $\Omega$ / sq at 1mil)
Printed Sheet Resistance	50 - 350 m $\Omega$ / sq (anilox-dependent)
Coverage	100 - 600 m <sup>2</sup> / kg (anilox-dependent)
Shelf Life	In a refrigerated environment of 2 - 9°C, > 8 months (unopened container)

**Refrigeration is recommended**

#### Typical Results

- < 2 s cure times with IR heating
- < 5 s cure times with conductive heating
- 10 - 60 s cure times with 140°C convection (velocity dependent)
- 80°C cures are possible with cure times > 3 minutes
- 25  $\mu\text{m}$  wide printed lines (contact NovaCentrix for details)
- 200 nm thick cured films with 1.5 BCM anilox, 1  $\mu\text{m}$  with 8 BCM

**Please contact [inkstechnicalsupport@novacentrix.com](mailto:inkstechnicalsupport@novacentrix.com) to learn more, for detailed application information, or for assistance. Ink can be ordered at [store.novacentrix.com](http://store.novacentrix.com)**