



PChem® Conductive Inks for Printed Electronics

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 µm 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 % (± 2 %) |
| Density (wet) | 2.2 g / mL (18.4 lb / gal) |
| Viscosity @ 10s ⁻¹ | 300 - 600 cP |
| Viscosity @ 1000s ⁻¹ | 100 - 200 cP |
| pH | 5.90 ± 0.05 |
| Volume Resistivity | 5 - 7 µΩcm (2.0 - 2.8 mΩ / sq / mil) |
| Printed Sheet Resistance | 50 - 350 mΩ / sq (anilox-dependent) |
| Coverage | 100 - 600 m ² / kg (anilox-dependent) |
| Shelf Life | In a refrigerated environment of 2 - 9°C, 6 - 8 months |

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 µm wide printed lines (contact NovaCentrix for details)
- 200 nm thick cured films with 1.5 BCM anilox, 1 µm with 8 BCM

Please contact inktechnicalsupport@novacentrix.com to learn more, for detailed application information, or for assistance. Ink can be ordered at store.novacentrix.com