

Product description

The electrochromic ink is a printable water-based formulation. The ink can be deposited using screen-printing and coating techniques and was specially designed to create active electrochromic films. The ink shows shear thinning behavior and can be dried using a conventional dryer.

Table I - Typical Ink Physical Properties	
Viscosity*	6000 - 15000 cP
Density (g/ml)	1.1 g/ml
Color	Dark Blue

* IKA ROTAVISC hi-vi I, disk spindle SP-8, 10RPM, 21°C

Pre-conditioning

The electrochromic ink should reach room temperature before use and then be vigorously stirred for 15 min. A mechanical stirrer can be used.

Storage and handling

The electrochromic ink should be stored protected from light. The ink should be stored at an even temperature in the range of 5°C to 30°C. Storage for more than 12 months is not recommended. After opening, the containers must be well closed to prevent the evaporation of water. The product is sensitive to frost and should therefore not be stored at temperatures below 5°C.

Health and safety

Please consult the appropriate Material Safety Data Sheet available on:

<https://www.ynvisible.com/ink-kit-description>

Screen printing & drying recommendations

Screen & squeegee parameters:

- Screen: Yellow polyester mesh 140 wires/cm (Diameter: 35 µm)
- Squeegee: Rubber (Hardness: 75° shores)

Curing

After printing, the electrochromic ink needs to be dried. The use of a conventional hot air dryer is recommended. Depending on the substrate used and the coating thickness, a temperature of 120°C (±10°C) for 2 minutes is recommended. For small printed areas, a vacuum oven or hot plate can be used. After fully dried, no additional annealing is required.

Cleaning

Solution: Water