

ZnO ink handling

infinityPV offers two classes of ZnO ink, **precursor ink** and **reactive ink** and each behaves differently. By following the notes below your material should be handled easily and long shelf lives of many years can be reached.



Precursor ink

- The precursor inks are currently offered in **water** and **methanol** as solvents (other solvents available on request).
- The solutions are **stable for many years (5+)** in **tightly closed bottles** stored at **room temperature** under standard ambient laboratory conditions.
- A precipitate might form but this is not important.
- **Microfilter the ink** before use through Teflon or cellulose fiber based filters (0.45 - 1 micron pore size).
- For application and curing conditions see our datasheet.

Reactive ink

- Reactive ink is available in a **number of concentrations** and organic solvents (**acetone, isopropanol, alcohol mixtures, chloroform, chlorobenzene, toluene** etc.).
- The inks can be provided in **almost any solvent at little extra cost**.
- **Contact with the atmosphere must be minimized** when opening and drawing ink from the mother bottle.
- It is recommend that **customers with large volume orders draw an aliquot into a smaller container** that is used to minimize the number of openings of the mother bottle.
- If handled like described the inks will be **stable for many years (3+)** at **room temperature** under standard ambient laboratory conditions.
- In some solvents **turbidity of the liquid ink may be visible** but this is due to the refractive index differences between solvent and solute and should be viewed as **normal**.
- Slight **precipitate may form** and is acceptable but is generally a sign of the ink having **had too much air contact or poor handling**.
- With a **large amount of precipitate** the ink is mishandled and **must be discarded**.
- **Microfilter the ink** before use through Teflon or cellulose fiber based filters (0.45 - 1 micron pore size).
- **Bottles stored correctly** without opening for longer periods of time will develop a blue colour that will **go away when re-exposed to air**. The blue colour is generally a **sign of good storage conditions**.
- For application and curing conditions see our datasheet.