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.