

## RECOMMENDATIONS FOR IMPROVING INK DRYING ON MATTE / SILK / DULL PAPERS

Ink setting has to do with the absorption of ink into the sheet. The absorption rate has to do with the pore size and pore structure of the coating and can therefore be different between paper grades. A sheet with fast ink setting can cause ink build up on press with a fast ink viscosity increase.

Ink drying which is an oxidation of the ink is a slower process that requires oxygen for the ink to dry. All the mechanism behind it and its interaction with paper is not fully understood but there are some precautions to take to improve the situation.

- Anti drying agent in the ink prevents the ink from drying (the oxygen can't
  do its work). In worse cases when too much anti dry has been used the
  ink will never dry. Spraying anti dry in the ink chests should be avoided or
  be used to a minimum.
- Ink for glossy paper should not be used for matte/silk paper as they
  generally have a longer drying time on matte paper. Use instead inks that
  are designed for matte paper and if higher ink gloss is required use a
  glossy varnish instead.
- The fountain solution has also its effect in ink drying. Fountain solution with alcohol is better than substitute but can not be used because of VOC. The alcohol substitute prolongs the drying of inks. When making up the fountain solution with tap water is important not just to measure the pH but also the conductivity. Conductivity above 1200 micromohs/cm can be used as a warning level. Above 1200 there is a risk for slow drying.

Information from Coast Paper

The Printing Ink Company