

PRINTING

Typically up to 800 microns. Can be used in conjunction with a primer to improve the ink Key. Usually finished with a UV varnish to protect the printed image from scratches.

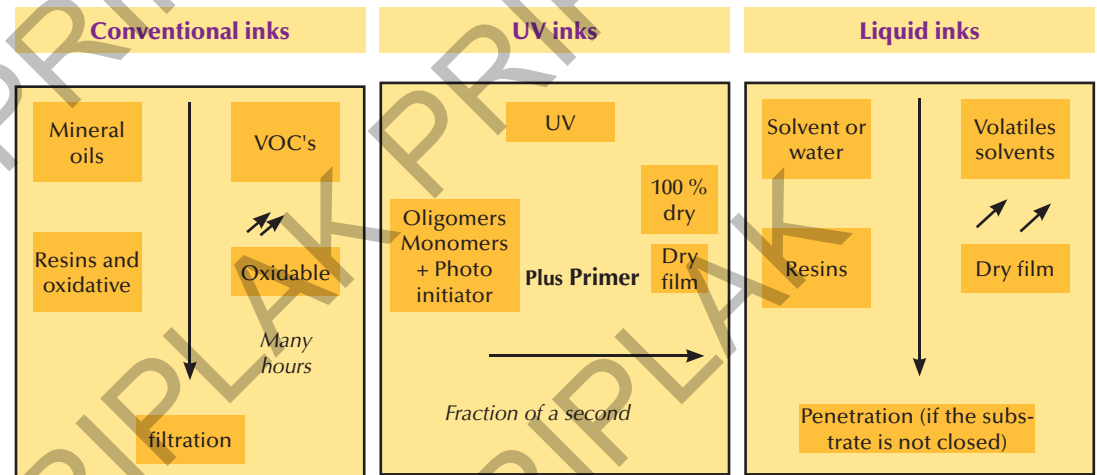
The key points :

- Speed... 2000-6000 sheets per hour
- Quality... Best possible 4 colour process results
- Cost... Most economical for large runs

Inks which dry by oxidation

Due to their constitution, these inks will start to dry in the print room and if the press is stopped for any length time. The result is a skin which can give a blurred impression. Stacks of finished prints must also be kept to a minimum to avoid set-off.

... **Other ink types...**



Drying with conventional inks

3 ways these inks dry :

- Absorption by the substrate
- Evaporation of the solvents
- Oxidation of the resins

Takes some time for the surface to be dry, and several hours of even days before the ink is completely dry. This obviously restricts any attempt at handling the prints during this period.

UV inks and varnish

In UV inks, the carrier is not evaporated or absorbed, but actually participates directly in the polymerization reaction. This means that 100 % of the surface deposit is dry and is why UV are the best inks for PP.

Liquid inks - drying

Drying is mainly by evaporation of the solvents. As Priplak® has a closed surface there is no help in drying from absorption.

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KEY POINTS

The corona treatment increases the surface energy level, which helps ink key.

The surface energy (dyne) level can be estimated with testing kits. We prefer the liquids - using separate wipe for each test and never putting a wipe that has been in contact with the material surface back in the testing liquid. Most kits have a maximum 6 months shelf life and should be routinely replaced.

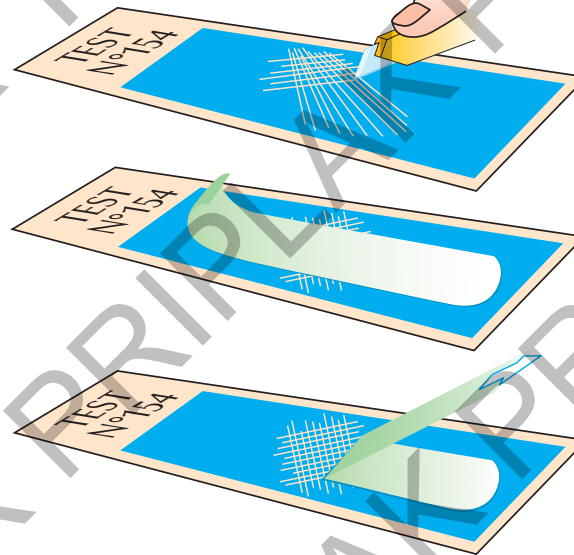
Humidity and time both reduce the effectiveness of the corona treatment - so it is important to keep material well wrapped and print within the advised timeframe.

Priming can help with ink key - especially with outdoor applications such as horticultural labels.

A varnish / sealer is useful to protect the printed image, but it is very important to ensure that is compatible with the ink set.

Polypropylene is a thermoplastic and will expand with heat. When printing both sides of a sheet, we recommend leaving the material to cool for at least a day between passes.

Ink key can be tested with different standards. It is best to wait 24 hours after printing to allow for "post cure". The tests are made with scotch tape with or without scoring.



Primer

- used to improve ink key
- especially important when used outside (plant tags)

Writeable undercoat

- an ink, white or transparent, which allows Priplak® to be written on with ordinary pens, pencils, etc...
- used for archive boxes, menus, labels, calendars.

Varnish

- applied After printing to protect the image from scratching.
- can be matt or gloss or even used in conjunction with special metallic and other effects.

As always it is important that inks, primers and varnishes are compatible when used together, and suitable for polypropylene.

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