

# UV PRINTING



*Available at multiple ColorGraphics locations*

UV printing is different from conventional printing in many ways. It is still ink on paper but the ink dries through a completely different process. Instead of having solvents in the ink that evaporate into the air and absorb into the paper, UV inks dry through a photomechanical process. When the inks are exposed to ultra-violet lights they turn from a liquid, or paste, to a solid. There is significantly less evaporation of solvents and much less absorption of the ink into the stock.

This is advantageous for many reasons. One of the biggest advantages of UV printing is that there are fewer emissions of volatile organic compounds into the environment since there is no evaporation of the solvents like with conventional inks. Another advantage of UV printing is that the inks can dry on plastic and other non-porous substrates. Because the inks dry through a photomechanical process it is not necessary for the ink solvent to absorb into the stock. Basically, if you can get the stock through the press you can print on it. Printers have even been known to print on substrates as unusual as wooden veneer.

In addition to the advantage of printing on unusual substrates like plastic, UV printing also offers significant advantages when printing on uncoated stocks as well. The solvents in conventional inks absorb very quickly into uncoated stocks. Because of this, less of the solvents evaporate into the air and the printed piece tends to have excessive dot gain and will look muddy or too full. Since UV inks dry when exposed to UV light, the inks do not have the time to soak into the paper. The ink dot is left sitting on top of the uncoated sheet, where it presents a cleaner less contaminated dot, ultimately giving more vibrant color.

The key to printing with UV inks successfully lies in exposing the UV ink to enough ultraviolet energy to cure the ink while not making the substrate too brittle and also achieving an acceptable level of adherence to the substrate. This is extremely difficult because every different substrate has very different characteristics.

All-in-all, UV printing is an excellent way to produce printed material on unusual substrates and on uncoated stocks.

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