

## Coated and Uncoated Stock

Printing Stock is made of bleached wood fibres, fillers, clay and caulk fillings. All papers start out being uncoated in the base preparation of the manufacture of paper. Once the paper is manufactured, it is covered in a white clay or clay and caulk filler material. The coating covers all the small crevices in the stock substrate, making it fairly smooth to feel.

This coating limits the porosity (the measure of the pores of the paper) if paper in its raw form. The limiting of the porosity limits the absorption of liquids into the paper. A coated paper therefore does not absorb the inks / toner printed on it as much as an offset or uncoated stock will. When the inks / toner are not absorbed into the paper they stay on the top of the paper or the coating, inks being naturally glossy from the oils that are in it become glossier to the eye. As the porosity is reduced on the paper, the higher the gloss level of the inks.

On the application of the coating on the base of the paper, the coating is buffed and polished by calendaring rollers (highly polished chrome cylinders) in the paper making machine. This highly polished surface then becomes glossy itself.

As less inks soak up on coated stocks, less ink is required to gain the same density of the ink colour on the sheet compared with the uncoated stock. The images, type and photographs are much sharper on coated stocks.

Coated stocks are not always glossy, and are available in a variety of finishes such as dull, matt or silk finish. These finishes are easier on the eye for reading long type passages. Unfortunately the loss of glossiness on the inks is also the result when these stocks are used. Often designers will specify a varnish on the pictures to gloss them back up when printed of such dull finished stocks.

You can probably guess that one stock has a coating of some kind and that the other paper doesn't. But, what does that mean in terms of your printing job? What should someone be aware of? Here's the difference.

Uncoated papers, due to the fibres of the wood and other fillers are very rough compared to the coated stocks. Uncoated stocks are classified as bonds, offsets, card, newsprint etc. These uncoated papers soak much larger quantities of ink, based on the porousness and the surface area of the uneven finish of the uncoated stock. Uncoated stocks have a tendency to dry faster to the touch, as the ink vehicles (oils in the ink) are absorbed into the porous paper. The inks printed on an uncoated stock are also heavier in volume per square area and are sometimes never dry to a rub resistance. A good example is the yester-year's blotting paper that used to soak up the excess ink from the writing of a quill pen.

Uncoated stocks are easier to write on as the surface accepts the ink more readily than a coated stock. Some writing inks will take several minutes to dry on higher gloss coated stocks, whereas ball point inks will smear even days later. Caution should be exercised if the piece being printed is being used as a piece to be written on.