



PAPER STOCKS

Few inventions change the world – paper is one that has.

Paper continues to play a significant role in almost every aspect of our daily lives, and in any printing job the kind, weight, and texture of the substrate is an important factor in the price, quality and finish of the final product.

Paper is manufactured in a number of finishes, weights and colours to suit a broad range of uses. Therefore the starting point for choosing a paper stock should be the consideration of that stock's ability to satisfy the aesthetic, technical and production requirements of a specific project in the final printed result you are trying to achieve.

PAPER AND FINISHES

Coated Paper

Art paper is coated on both sides with china clay and calendered to give a very smooth finish.

Within the coated range stock we refer to matt arts, gloss arts, chromo and cast coated stocks.

Coated papers improve reflectivity, colour, brightness and ink hold out, more so than uncoated papers.

Matt Art	Surface has a flat matt finish exhibiting a smooth non-reflective surface.
Satin Matt Art	Essentially a matt surface finish which will still exhibit some ink gloss when printed. Also known as silk, half matt or dull.
Gloss Art	Surface has a gloss shiny appearance and reflects light.
Cast Coated Paper	A high gloss finish on both or one side of paper or board.
Chromo	Coated on one side only, referred to also as single sided board.

Better quality coated papers receive two (and sometimes more) coatings on each side, these papers are referred to as double coated.

Uncoated Paper

Uncoated paper has no coating which creates a rough surface and is relatively high bulk.

Inks on uncoated stocks generally appear darker and fill in more as the ink is absorbed more into the body of the uncoated paper than on coated stocks.

Amongst the range of uncoated paper stocks we find embossed finishes, laid, wove, watermarked and kraft paper.

Embossed Finishes	A paper with a raised surface to imitate a certain look.
Laid and Wove	The most common of writing papers, a continuous watermark consisting of close parallel lines.
Watermark	A deliberate design or pattern such as a translucent logo in paper created during manufacture by a dandy roll.
Kraft	Paper made from chemical wood pulp, bleached or unbleached, used for wrapping and packaging.

Board

When paper reaches a certain thickness, about 200gsm it is referred to as board.

PAPER CHARACTERISTICS

Grain Direction

Grain direction refers to the direction in which most fibres within a paper are aligned. All papers and boards are made on a continuous wire which allow the fibres to lie in one particular direction, with that direction being the grain direction.

It is best to have the grain direction running parallel with the line of folding.

If printed material is to be overprinted via a laser printer the general requirement will be long grain A4 (the grain runs parallel to the long edge) or short grain A3 (the grain runs parallel to the short edge).

Grammage

The metric basis for the weight of paper. Weight is expressed in grams per square metre (gsm).

Absorbency

Refers to the amount of ink a paper stock will absorb. This affects the level of setting and drying of inks and influences mottling, dot gain and trapping.

Brightness

Brightness is determined by the amount of light reflected from a sheet. The level of brightness of a paper stock creates contrast and intensifies colour when printing.

Whiteness

Whiteness is not the same as brightness. The level of whiteness is a subjective measure of a shade of white. The environment in which a paper is viewed will influence the perception of the level of whiteness.

The whiteness is particularly relevant when looking at the contrast between the printed image and the unprinted areas of the paper.

The colour of the paper used in printing is important because it determines the colour perceived by the eye.

Opacity

Opacity is the extent to which a paper is capable of obscuring matter printed on the reverse side of the sheet. This is commonly referred to as show through. Poor opacity will result in show through.

Calliper

The thickness or bulk of a paper or board, this is expressed in microns.

**THE IMPACT OF PAPER ON PRINT**

Different paper stocks will deliver very different printing results – depending, for example, on their texture, colour, weight and ink-absorption qualities.

Coated papers do not absorb as much ink as uncoated papers because the surface is not as porous.

See for yourself! The following pages show examples of different stocks printed with the same image, using the same colour density standards, the same amount of original detail and the same printing process. The only difference is the stock.

If a critical colour match is required it is a good idea to get the ink supplier involved. They will be able to test the ink required on the nominated stock to see if a special matching is necessary.