

Understanding Colour Variation

Print is a manufactured process, so there will always be slight variations in colour. Most printers will have an acceptable level of colour variance when they print a job, so be aware that slight variations are common and sometimes unavoidable. Secondly, understand that colour will print differently depending on a variety of factors:

- The colour model used in the artwork (RGB, SPOT (PMS), CMYK)
- The printing process used (digital, offset, pad print, transfer or screen print)
- The material it is printed on (paper, vinyl, fabric)
- The texture or finish of the product (coated or uncoated paper stock, laminated, colour of the paper or colour of the product)

Let's touch briefly on the points above and why they make such a difference to how colour prints:

RGB, SPOT (PMS), CMYK Colours

However similar they may look on screen, RGB, SPOT (PMS) and CMYK colours will not all print the same. RGB is primarily used for digital viewing only. CMYK and SPOT (PMS) colour models use different techniques in applying the colour so will not offer exactly the same outcome. CMYK layers the colours one at a time to achieve your end result, where SPOT (PMS) colour is pre-mixed before being printed. **We only accept CMYK artwork for all digital and offset print jobs.**

OFFSET VS DIGITAL Printing

Offset printing uses a rubber 'blanket' to transfer the printed image from a metal plate to the paper stock. Using a mixture of ink and water balance, jobs printed offset are printed in CMYK. The use of a professional designer is essential when preparing your artwork.

Digital printers, like a colour photo copier, use dry toner and the image is transferred electronically to the stock. Artwork goes through far less scrutiny when being printed on digital machines as they are more 'forgiving' of artwork created by non-professional designers which may have some technical errors.

If you were to print the exact same job on an offset and then a digital copier, there is a high probability of colour difference. That's why it is difficult to offer a digital print proof for an offset print job as it will not be a true indication of colour.

Type of material

When printing on paper, colour will appear differently than on vinyl, fabric or metal simply because of the way the ink sets. Quite often we might recommend slightly altering your CMYK or SPOT (PMS) colour values depending on what you are printing on, in an effort to ensure the colour is more consistent.

Colour will print differently on coated versus uncoated paper. Coated papers have a smooth coated finish. Uncoated paper is more absorbent and therefore when the ink is applied, the colour will look different to the same colour applied to the less absorbent coated stock. A great example is to take a look at the coated and uncoated PMS colour swatch books which are used as standard in the printing industry. The same colour code will offer a different result depending on the paper stock.

Laminating will also change the depth of colours. A gloss laminate will brighten and deepen colour, while a matt laminate will dull colour down but offer a smoother finish.

Please contact us if you need any further information.