

A Guide to Printing Uncoated Paper and Board

Sealing

Sealing using a breathable machine varnish can help prevent solvents getting trapped in the paper, reducing problems such as gas ghosting and ink rub – particularly when heavily inked areas come into contact with white paper. However, water based (aqueous) sealants can cause excessive curl in the paper owing to the added moisture. Please also note that sealing changes the surface character of a paper, an important factor when choosing to print on Uncoated paper.

Retaining detail in darker shadow areas

Conventional halftone printing has a variable dot size which can close up in the three-quarter and shadow tones because of the spread, or 'gain', of the larger dots. One way to avoid this is to use a repro technique called Stochastic or FM screening where the dots are all the same size, relying on a greater or fewer number of dots to create the various tonal areas. Because the dots are all the same size there is no detail loss in the darker shadow areas.

Scan format

If scans are to be supplied to the printer they should be as RGB files rather than CMYK files. This way the printer has access to them and has the possibility of adjusting the scan curves. Scans that have been previously archived as CMYK files can be converted to RGB but this risks detail loss. This also applies if the image has been generated as a digital photograph rather than as a scan.

Spot varnish

A gloss litho printed varnish works best on a smooth polished surface, so the natural texture of an uncoated sheet reduces this effect. An alternative way of creating the highly reflective 'spot gloss' effect is to use a transparent printing foil.

Folding and cross-folding

All papers can crack when folding unless simple rules are followed. Always crease the paper before folding and whenever possible fold with the grain of the paper. Paper is usually bought with the grain running along the longest dimension (Long Grain) but sometimes it is better to have the grain running across the sheet (Short Grain). The heavier the paper weight the more relevant this decision.

Whenever you cross-fold a broadsheet there is always the danger of creasing or 'crows footing' where the two creases overlap. This can be greatly reduced by keeping the paper weight – and consequently the bulking – down.

Bright colours

We see colour as reflected light so the softer, more textured surface of Uncoated paper reduces this reflection. Colour strength or brightness can be enhanced by the use of high density pigment inks, or simply by double-hitting colours. An extreme example of this is the use of fluorescent inks.

Contrast

Instead of keeping the entire image 'open' at repro stage, which can produce a flat result, increase the visual contrast by keeping shadows strong (90-95%), the mid- and three-quarter tones open and the highlights bright (0% in the catchlight areas).

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