

Contra Vision® BACKLITE Impress™ Through Combination Method

Configuration

This method can be used by any printing method, for example screen, litho, flexo or any digital printing method, using conventional equipment to achieve a superimposed design of consistent colour rendering which is visible from one side and a reverse image is visible from the other side.

It is important that you read to the end of this document, although you will find downloadable files in the Know-how section of the website that enable you to simply assess the 'Line Discipline' most suited to your printing equipment, the substrate onto which you are printing and the required level of transparency and design impact.

1. Lines should typically be printed parallel with the direction of application of ink, i.e. parallel to the direction of pull of a squeegee for screen-printing (perpendicular to the squeegee), parallel to the movement of inkjet printheads, perpendicular to line of grippers for litho-printing or parallel to the web for flexo-printing.
2. Print sufficient layers of white lines to give a translucent white layer (for example 1 layer for digital UV inkjet, 3 layers for litho-printing, 2 layers for flexo-printing and 2 layers for digital printing). The level of white reflectivity/transmissivity should be sufficient to enhance the image, but still allow reasonable visibility from the reverse side.
3. Use transparent or translucent design colour inks that provide a good color rendering against the white.
4. Use normal practice to minimise registration error with the printing equipment, which is helped by a stable substrate, such as polyester film. If unstable substrates are used, such as static cling film, they should have a stable liner.
5. Assess the tolerance perpendicular to the lines (t) that can confidently be worked within.

6. Line Dimensional Discipline:

If it is desired not to see the white layer overlapping the CMYK design layers in any instance, then:

t = tolerance

wd = width design colour

ww = width white = wd-4t

It is not typically essential to achieve the above requirement and a compromise line discipline can be decided by you. However, a maximum tolerance of white layer overlapping the design layer should be established, if not zero, for quality control purposes.

7. Examples Of Line Disciplines

CR/1 t = 0.075mm

C = 3.0mm

wd = 2.1mm

ww = 2.0mm (1.8mm for no possible overlap)

CR/2 t = 0.15mm

C = 6.0mm

wd = 4.2mm

ww = 4.0mm (3.6mm for no possible overlap)

8. Pre-Press Proofing System

Whether the order is to be printed by a digital or analog printing method, a 'proof' using a digital method with white ink or toner is typically appropriate before going to press.

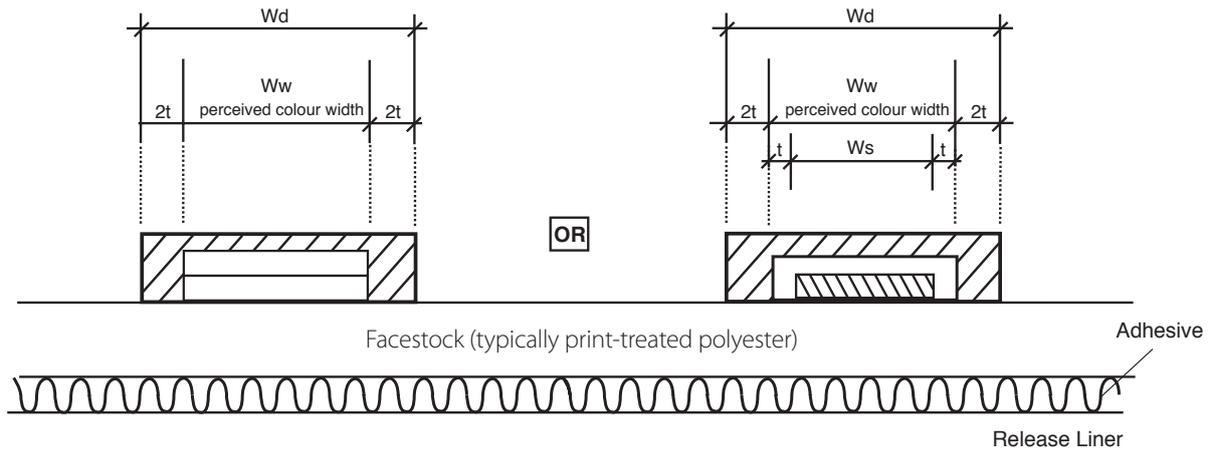
9. Post-Print Check

As well as normal checks for design printing quality, check at least one panel per hundred to ensure that line dimensional discipline is being maintained throughout the panel with a microscope with built in scale.

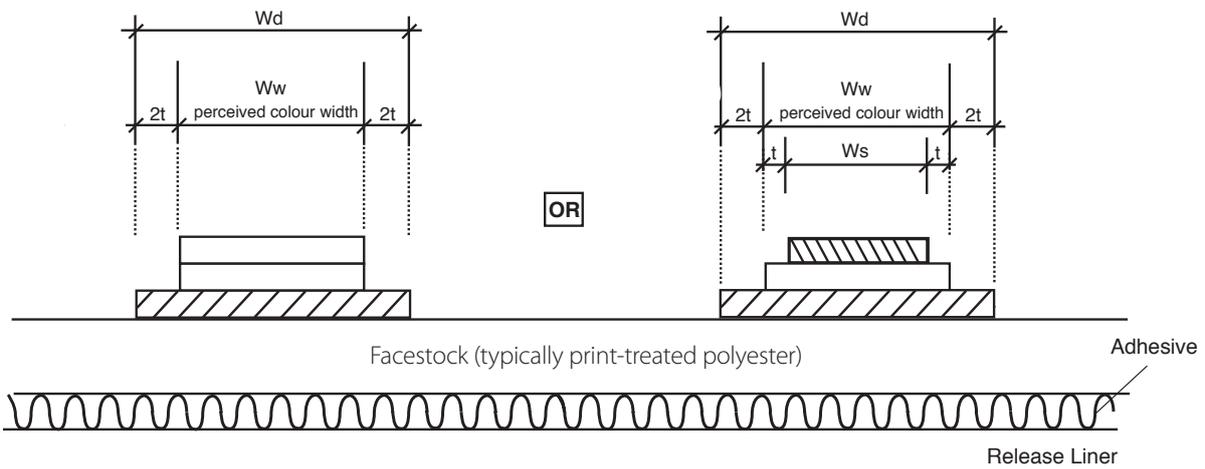
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Cross-sections through a single line

Outside Application



Inside Application



Note: Illustrations are typical for screenprinting. The left hand illustrations are typical for UV inkjet printing. For litho-printing the number of layers of white, black and silver (if present) are increased to produce the required opacity.



t - printing tolerance
Ww - width white
Wd - width design
Ws - width silver
 (if present)

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Patent and Licensing Information

PATENT AND TRADE MARK NOTICE

All Contra Vision[®] BACKLITE Impress[™] products are covered by the patent family of European Patent No. 0,880,439 or US Patent No. 6,212,805. The design layer or layers will normally be created by computer manipulation of conventional artwork to achieve the required line format, in which case the method also falls within the patent family of European Patent No. 0,904,206 or US Patent Nos. 6,507,413 and 7,193,631.

There should be at least one clearly visible patent and trade mark notice on each panel, provided to you as a "Total Job Code", for example:
"Contra Vision[®] BACKLITE Impress[™]/EP 0 880 439:EP 0 904 206/009/132"

This notice may be printed on the design side or reverse side, on one line of the print pattern.

TRADE MARK AND LICENSING NOTICE

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