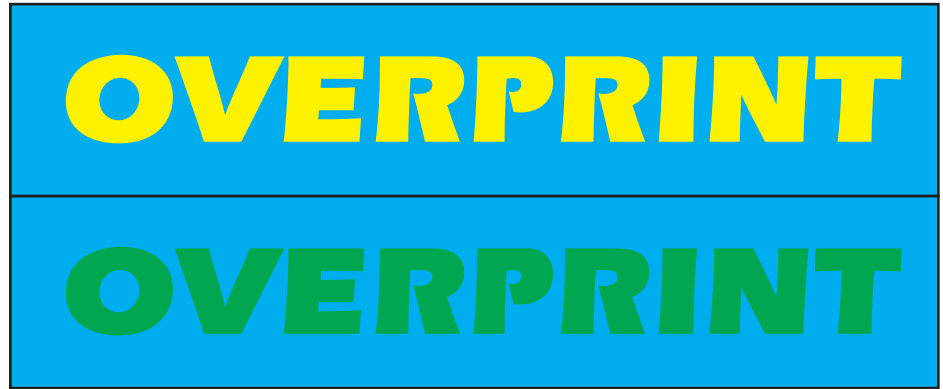


Overprinting & Rich Blacks

Overprint

Overprints can be confusing as what you see on the monitor isn't always what you get in print. In the example on the right, the top figure is what the monitor will show whether or not the word is set to overprint or knock-out of the background. The word should knock out of the cyan background and be trapped, otherwise the result when printed will look like example on the bottom. Print separations to your laser printer to see how the file will print on press.



Rich Black

Rich black is often used for covering large areas with black to achieve a darker, "richer" black. Combinations of the other process color inks, cyan, magenta, and yellow are used to create a rich black. A rich black is often created with 100% black, 60% cyan, 40% magenta, and 20% yellow.

Other options include a warm black with 100% black and 60% magenta. Or a cool black with 100% black and 60% cyan.

Keep in mind that there are total ink limits on press. The standard is 240-280% on a web press and 300% for a sheetfed press. Applying too

much ink causes printing problems

A rich black can be used to avoid misregistration problems in illustrations where black touches other process colors (see example next page).

Black Gothicas

Working with black isn't always as straight-forward as it may seem. In addition to plain black (0C 0M 0Y 100K) and rich black (60C 60M 60Y 100K), Photoshop can throw a curve at you.

An RGB image that contains black (0R 0G 0B) will convert to different shades of black when converted to CMYK depending on the defaults set

up in the Color Setting dialog (Edit > Color Settings). Selecting "Photoshop 5 Default Spaces" in the Color Settings will create a black made up of 63C 52M 51Y 100K. Selecting "US Prepress Defaults" will result in a black that is 75C 68M 67Y 90K, a dark gray by comparison. In either case, if the background is primarily "black" and placed in a page layout program with a 100% black box, the blacks won't match. Even adding to the canvas in Photoshop and surrounding the image with "black" may be noticeable.

Selecting Black in the Fill dialog (Edit > Fill), rather than Foreground Color will result in a black made up of 100C 100M 100Y 100K. This black is what is a registration black (as in Quark) and may cause printing problems as too much ink is being applied.

As you can see, black isn't as simple as black and white, think in shades.

To see what happens with these examples, enlarge them to fill the screen.

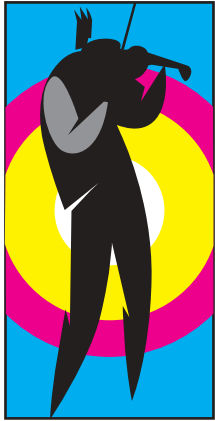
The image on the far left was converted from RGB to CMYK using Photoshop 5 defaults. The background is basically black with a black border added in Photoshop. Enlarge the image and note the line the black border created.

The near left image was converted from RGB to CMYK using the US Prepress defaults. The same black border is included, but in this example blends in more with the background.

There is no "right" or correct way. Be aware of the issue.



Original Illustration



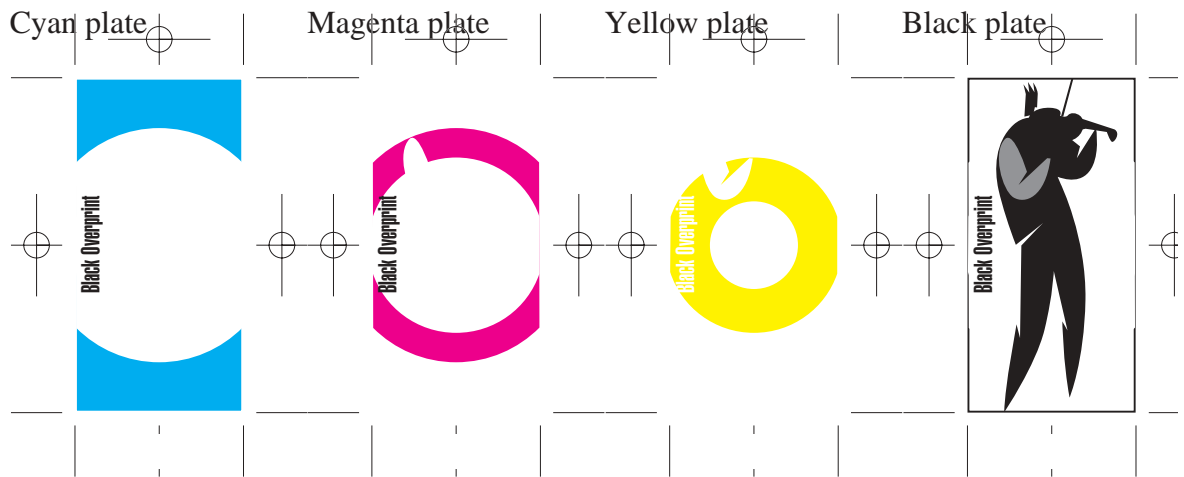
This example shows what happens when this illustration separates for printing. When black overprints cyan, magenta and yellow, three shades of black result.

A better solution is for the black to knock-out the other three colors. In this case, trapping the three colors to the black would be appropriate.

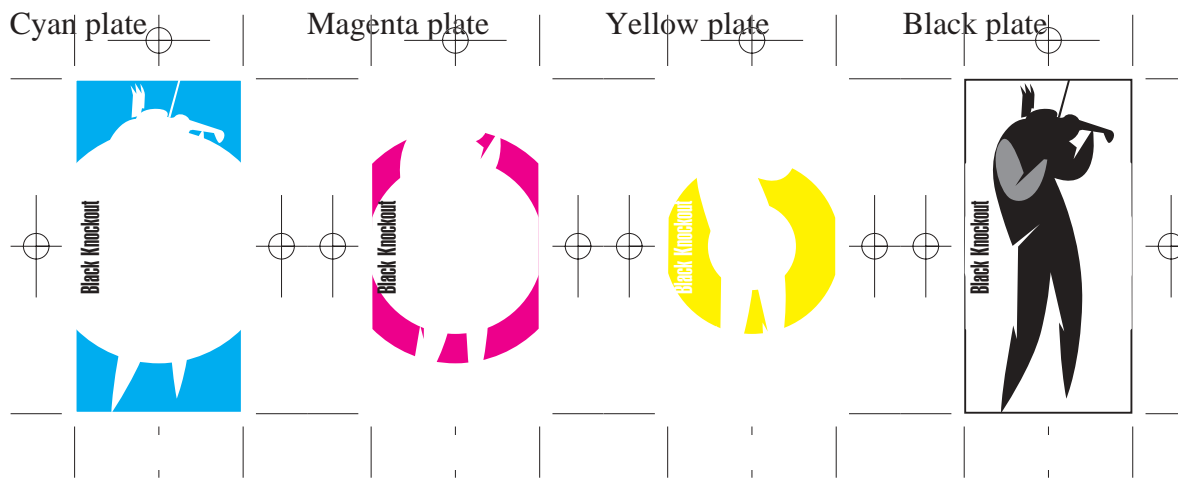
For the best results, use a rich black with percentages of the cyan, magenta and yellow. In this case no trapping is required for the black, although the other colors should be trapped.

To check yourself, print separations to you laser printer and check the results. In this example a separations were printed to a PDF file for comparison.

Black Overprint Separations: Result 3 shades of black



Black Knock-out Separations: Consistent black



Rich Black Separations: Consistent rich black

