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Color Guide.

We're here to help you untangle the jargon surrounding color when it comes to design and print. There are lots of terms thrown around, but what do they actually mean? How do you manage your color settings to make sure they're right for print?

This guide will provide a quick overview to help you set up your design document for the best print quality possible.

Note: We don't manually check colors on documents. If you upload a document in a different color mode to CMYK (the standard for print), our online tool will automatically adjust the colors. This could result in some color variation – so make sure you check your proof before pressing OK!

Color Gamut Differences

You'll probably have come across two of the main color modes: RGB and CMYK. These acronyms refer to the colors involved in the palette to make up every other color. RGB stands for Red, Green, and Blue, while CMYK stands for Cyan, Magenta, Yellow, and Key (meaning Black).
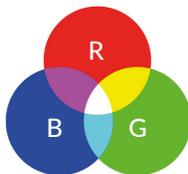
RGB colors are additive. This means the starting point is a black canvas (like a computer screen) and colors are added to build the final image.

CMYK colors are subtractive. This means the starting point is a white canvas, and colors are added to block out parts of the color spectrum.

Why Are Print Files CMYK?

The RGB color spectrum is far wider than CMYK, so colors (such as fluorescents) can be created in RGB but not in CMYK. Commercial printing presses use white paper with CMYK spectrum, as this means quality and vibrancy of colors can be set to a standard not available with the variations of an RGB spectrum.

Commercial printing presses print on white paper with the CMYK spectrum, so design files should be prepared with this in mind to make sure the final printed result is as close to the original design file as possible.

You'll see from the below images that converting from RGB to CMYK results in some color variations even on the screen. That's why it's recommended to convert any images you use during the design process from RGB to CMYK, as you can then re-balance the colors manually to match to the desired vibrancy etc. It's much harder, if not impossible, to create such a match after converting an entire document from RGB to CMYK.

Converting RGB Files To CMYK

Some software will only use RGB, including Word and Powerpoint. If your document has been created in RGB, we will send you a proof of the converted CMYK version to check that you are happy before it's sent to print.

Creating Files In CMYK

Here we're going to show you how to create design files in CMYK with the most common design software in use. Setting up your document in CMYK settings before you do anything else will make sure it is in the best format for a high-quality print result.

Adobe Photoshop
When you open the software to create a new document, you'll be asked to set the color requirements in a dialog box. Simply ensure these are set to CMYK before you press OK.
If you want to check the spectrum of an existing document, simply click on Image, and then Mode, and the settings will come up.

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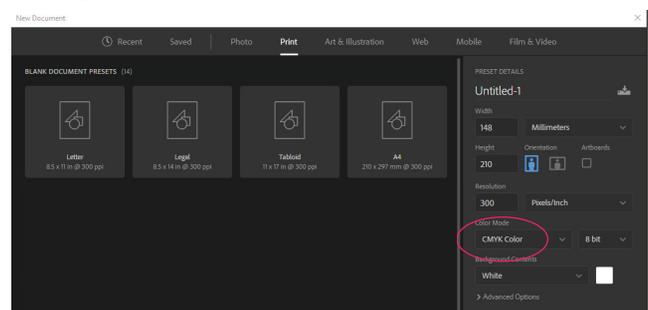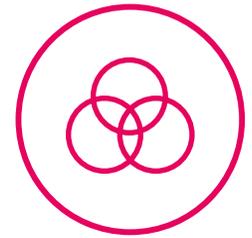
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Adobe InDesign
Colors are converted when a design file is exported to PDF. To make sure the document is in CMYK, select the option of PDF/x-1a:2001 within the export dialog. This is a standard print setting used by commercial presses, so you can be sure it will create the right settings in your PDF.

Adobe Illustrator
The color mode is set when you create a new document in Adobe Illustrator, the same way as in Adobe Photoshop. If you want to export the file to PDF, select the preset option of PDF/x-1a:2001 to ensure it is CMYK.

Microsoft Publisher
Once the document is open, go to File > Info > Commercial Print Settings > Choose Color Model. This allows you to set the color mode to CMYK.

Other Software
You may be using different design software to the ones mentioned above. Simply make sure your key settings are CMYK (sometimes referred to as Process Colors), with a color profile Fogra 39 (ISO 12647-2:2004), or if exporting to PDF always choose the option of PDF/x-a:2001.

Final Tips

☐ Check printed CMYK colors if you're not sure whether your document will print well

☐ Check proofs on screen using a color calibrated monitor if you can. An uncalibrated monitor means colors will vary between different screens, even on the same document.

☐ Print samples with an output profile set to Fogra39- and use Acrobat Pro's output preview tool to check colors.

☐ Don't use a desktop printer to try and print a sample, as they will usually try to create an RGB output instead of CMYK, so the result will be inaccurate.