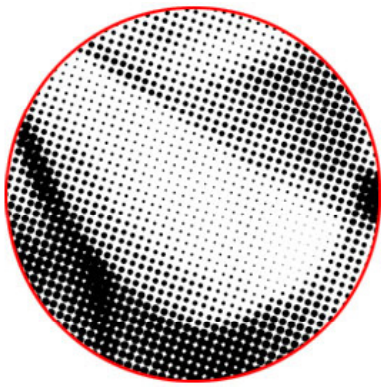


Color and Printing

CMYK = Cyan, Magenta, Yellow, Black

aka "Process" printing is called a "subtractive" color model, because at full strength, all colored wavelengths are filtered out and only black remains (theoretically- in reality it's not pure black due to the physical properties of the ink.) Printed color is made up of transparent C, M, Y, and K dots overlapping in HALFTONE patterns. If you look closely at printed material you will see these dots (although you may need a magnifying glass.)



Software allows you to create colors by entering in CMY and K values in percentages from 0-100%.

K is the "key" - black is used because the combination of CMY at 100% strength does not make a good enough black (and that much ink can make the paper too damp.) Additionally, it would be risky to attempt to

print the fine details of text using three separate inks, because the slightest misalignment of the ink dots would create distortion.

A TINT of a process color is a lighter version of that color, the idea being to represent that color mixed with increasing percentages of WHITE, as in paint mixing.

Spot ink is pre-mixed in order to guarantee consistent color in different print jobs, reproduce colors that cannot be made via CMYK (such as metallics, neons, or varnishes), and to save money in cases where a spot color + black are used instead of printing in full CMYK color. Spot colors are printed in one run, rather than a few passes. Companies like Pantone produce swatch books that enable designers to choose a specific color in their software, knowing how it will look when printed.

(In InDesign, go to the Swatches palette and choose New Color Swatch. Then choose Spot as type.)

RGB = Red, Green, Blue

The combination of red, green, and blue colored lights in electronic equipment produces all of the colors you see displayed on these devices.

RGB has a greater GAMUT than CMYK, meaning the three overlapping lights produce a broader range of colors. RGB is an additive model, meaning when the colored lights overlap at full strength, they produce white.

(Want to see something fun? Type something in Cyan, Magenta, and Yellow text and select them to see RGB.)

