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CMYK Color Guide

Black and Gray

There are two kinds of black colors that can be used in printing. A one color black (C=0 M=0 Y=0 K=100) is actually a dark gray and should be used on all text that is 18 points or smaller. A 4-color black (C=30 M=30 Y=30 K=100) should be used for text that is 19 points or larger OR for anything else that is intended to print as a dark, rich black. Making grays can be done in two ways. A one color gray is simply a one color black with the amount of "K" reduced. A multi-color gray is normally made up of black and equal parts of "C, M, and Y".

C= 0 M= 0 Y= 0 K= 100	C= 0 M= 0 Y= 0 K= 70	C= 0 M= 0 Y= 0 K= 50	C= 0 M= 0 Y= 0 K= 30	C= 0 M= 0 Y= 0 K= 10
C= 30 M= 30 Y= 30 K= 100	C= 25 M= 25 Y= 25 K= 70	C= 20 M= 20 Y= 20 K= 50	C= 15 M= 15 Y= 15 K= 30	C= 5 M= 5 Y= 5 K= 10

Red Hues

Getting the red you want can often be very tricky. Reds tend to often print "orangey" or rust colored. To ensure you get the color you are looking for, it is important to keep a close eye on both the ratio of "M" (Magenta) to "Y" (Yellow). Anytime the amount of yellow is greater than the amount of magenta, you can count on getting a "orangish" red as a result. It is a good rule to make colors from two base colors (for instance: M + Y) and then use the remaining unused color (In this case "C" - Black or "K" technically is NOT a color) to darken the color. Using "K" to darken a color tends to make the color "impure" or "muddy".

C= 0 M= 100 Y= 100 K= 0	C= 0 M= 70 Y= 70 K= 0	C= 0 M= 50 Y= 50 K= 0	C= 0 M= 30 Y= 30 K= 0	C= 0 M= 10 Y= 10 K= 0
C= 20 M= 100 Y= 100 K= 0	C= 14 M= 70 Y= 70 K= 0	C= 10 M= 50 Y= 50 K= 0	C= 6 M= 30 Y= 30 K= 0	C= 2 M= 10 Y= 10 K= 0
C= 50 M= 100 Y= 100 K= 0	C= 35 M= 70 Y= 70 K= 0	C= 25 M= 50 Y= 50 K= 0	C= 15 M= 30 Y= 30 K= 0	C= 5 M= 10 Y= 10 K= 0
C= 70 M= 100 Y= 100 K= 0	C= 49 M= 70 Y= 70 K= 0	C= 35 M= 50 Y= 50 K= 0	C= 21 M= 30 Y= 30 K= 0	C= 7 M= 10 Y= 10 K= 0

Orange Hues

It is fairly easy to get a bright or vibrant orange, however, darkening or graying down the color can be difficult. It is a good rule to make your colors from two base colors (for instance: M + Y) and then use the remaining unused color (In this case "C") to darken or gray the color. One problem with this is that graying the color with "C" can cause the color to become greenish in tint. This is because of the abundant use of "Y" inherent in orange colors. Once the amount of "C" in your orange becomes significantly more than the amount of "M" in your color, you can expect to see a greenish tint to your color in the final printed product. Using "K" to darken a color tends to make the color "impure" or "muddy".

C= 0 M= 67 Y= 100 K= 0	C= 0 M= 47 Y= 70 K= 0	C= 0 M= 34 Y= 50 K= 0	C= 0 M= 20 Y= 30 K= 0	C= 0 M= 7 Y= 10 K= 0
C= 20 M= 67 Y= 100 K= 0	C= 14 M= 47 Y= 70 K= 0	C= 10 M= 34 Y= 50 K= 0	C= 6 M= 20 Y= 30 K= 0	C= 2 M= 7 Y= 10 K= 0
C= 50 M= 67 Y= 100 K= 0	C= 35 M= 47 Y= 70 K= 0	C= 25 M= 34 Y= 50 K= 0	C= 15 M= 20 Y= 30 K= 0	C= 5 M= 7 Y= 10 K= 0
C= 70 M= 67 Y= 100 K= 0	C= 49 M= 47 Y= 70 K= 0	C= 35 M= 34 Y= 50 K= 0	C= 21 M= 20 Y= 30 K= 0	C= 7 M= 7 Y= 10 K= 0
C= 0 M= 47 Y= 100 K= 0	C= 0 M= 33 Y= 70 K= 0	C= 0 M= 24 Y= 50 K= 0	C= 0 M= 14 Y= 30 K= 0	C= 0 M= 5 Y= 10 K= 0
C= 20 M= 47 Y= 100 K= 0	C= 14 M= 33 Y= 70 K= 0	C= 10 M= 24 Y= 50 K= 0	C= 6 M= 14 Y= 30 K= 0	C= 2 M= 5 Y= 10 K= 0
C= 50 M= 47 Y= 100 K= 0	C= 35 M= 33 Y= 70 K= 0	C= 25 M= 24 Y= 50 K= 0	C= 15 M= 14 Y= 30 K= 0	C= 5 M= 5 Y= 10 K= 0
C= 70 M= 47 Y= 100 K= 0	C= 49 M= 33 Y= 70 K= 0	C= 35 M= 24 Y= 50 K= 0	C= 21 M= 14 Y= 30 K= 0	C= 7 M= 5 Y= 10 K= 0

Yellow and Green Hues

While it is easy to get a nice, pure looking yellow in print, variations on the color such as darker tints or more grayed down versions of the color are extremely limited. It is difficult to darken a yellow without causing it to become a different color - namely orange or green. There really aren't any good work arounds for this. It is best to always make yellows from just two colors. Adding a small amount of "M" to darken your color will work best. Using "K" to darken a color tends to make the color "impure" or "muddy".

Greens work exactly opposite to the way that yellows do. It is easy to get many different dark or grayed down greens, however, getting a vibrant pure version of the color leaves you with only limited options. Generally it is best to use only "C" and "Y" in varying amounts when creating a bright green, the addition of any "M" or "K" will significantly reduce the brightness of a green.

C= 0 M= 27 Y= 100 K= 0	C= 0 M= 19 Y= 70 K= 0	C= 0 M= 14 Y= 50 K= 0	C= 0 M= 8 Y= 30 K= 0	C= 0 M= 3 Y= 10 K= 0
C= 20 M= 27 Y= 100 K= 0	C= 14 M= 19 Y= 70 K= 0	C= 10 M= 14 Y= 50 K= 0	C= 6 M= 8 Y= 30 K= 0	C= 2 M= 3 Y= 10 K= 0
C= 50 M= 27 Y= 100 K= 0	C= 35 M= 19 Y= 70 K= 0	C= 25 M= 14 Y= 50 K= 0	C= 15 M= 8 Y= 30 K= 0	C= 5 M= 3 Y= 10 K= 0
C= 70 M= 27 Y= 100 K= 0	C= 49 M= 19 Y= 70 K= 0	C= 35 M= 14 Y= 50 K= 0	C= 21 M= 8 Y= 30 K= 0	C= 7 M= 3 Y= 10 K= 0
C= 0 M= 7 Y= 100 K= 0	C= 0 M= 5 Y= 70 K= 0	C= 0 M= 4 Y= 50 K= 0	C= 0 M= 2 Y= 30 K= 0	C= 0 M= 1 Y= 10 K= 0
C= 20 M= 7 Y= 100 K= 0	C= 14 M= 5 Y= 70 K= 0	C= 10 M= 4 Y= 50 K= 0	C= 6 M= 2 Y= 30 K= 0	C= 2 M= 1 Y= 10 K= 0
C= 50 M= 7 Y= 100 K= 0	C= 35 M= 5 Y= 70 K= 0	C= 25 M= 4 Y= 50 K= 0	C= 15 M= 2 Y= 30 K= 0	C= 5 M= 1 Y= 10 K= 0
C= 70 M= 7 Y= 100 K= 0	C= 49 M= 5 Y= 70 K= 0	C= 35 M= 4 Y= 50 K= 0	C= 21 M= 2 Y= 30 K= 0	C= 7 M= 1 Y= 10 K= 0

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Green Hues (cont'd.)

One final thing to watch for when creating dark or grayed down greens is the possibility of the tint becoming too saturated with "M" resulting in more of a brown or reddish tint. If your green is made up of equal parts of both "C" and "Y" AND the amount of "M" in your green becomes close to equaling the amount of either "C" or "Y" in your color, you can expect to see a reddish tint to your color in the final printed product. Avoid this by either using less "M" OR adding more of either "C" or "Y".

C= 80 M= 0 Y= 80 K= 0	C= 56 M= 0 Y= 56 K= 0	C= 40 M= 0 Y= 40 K= 0	C= 24 M= 0 Y= 24 K= 0	C= 8 M= 0 Y= 8 K= 0
C= 80 M= 20 Y= 80 K= 0	C= 56 M= 14 Y= 56 K= 0	C= 40 M= 10 Y= 40 K= 0	C= 24 M= 6 Y= 24 K= 0	C= 8 M= 2 Y= 8 K= 0
C= 80 M= 50 Y= 80 K= 0	C= 56 M= 35 Y= 56 K= 0	C= 40 M= 25 Y= 40 K= 0	C= 24 M= 15 Y= 24 K= 0	C= 8 M= 5 Y= 8 K= 0
C= 80 M= 70 Y= 80 K= 0	C= 56 M= 49 Y= 56 K= 0	C= 40 M= 35 Y= 40 K= 0	C= 24 M= 21 Y= 24 K= 0	C= 8 M= 7 Y= 8 K= 0

Blue Hues

By far, the most complained about color result involves the use of Blue. As you may notice from the chart to the right, there are very few "pure" looking blues available in the CMYK format. As soon as "M" or "Y" are introduced to a blue color, the color begins to change to either violet (when adding "M") or green (when adding "Y"). Blues tend to print more "true" blue when they are either made up of very specific mixes of 2 colors OR in most cases by using three colors (keeping in mind that "K" or Black is technically NOT a color). We strongly suggest using the mixes provided on this sheet.

C= 100 M= 0 Y= 30 K= 0	C= 70 M= 0 Y= 21 K= 0	C= 50 M= 0 Y= 15 K= 0	C= 30 M= 0 Y= 9 K= 0	C= 10 M= 0 Y= 3 K= 0
C= 100 M= 20 Y= 30 K= 0	C= 70 M= 14 Y= 21 K= 0	C= 50 M= 10 Y= 15 K= 0	C= 30 M= 6 Y= 9 K= 0	C= 10 M= 2 Y= 3 K= 0
C= 100 M= 50 Y= 30 K= 0	C= 70 M= 35 Y= 21 K= 0	C= 50 M= 25 Y= 15 K= 0	C= 30 M= 15 Y= 9 K= 0	C= 10 M= 5 Y= 3 K= 0
C= 100 M= 70 Y= 30 K= 0	C= 70 M= 49 Y= 21 K= 0	C= 50 M= 35 Y= 15 K= 0	C= 30 M= 21 Y= 9 K= 0	C= 10 M= 7 Y= 3 K= 0
C= 100 M= 50 Y= 0 K= 0	C= 70 M= 35 Y= 0 K= 0	C= 50 M= 25 Y= 0 K= 0	C= 30 M= 15 Y= 0 K= 0	C= 10 M= 5 Y= 0 K= 0
C= 100 M= 50 Y= 20 K= 0	C= 70 M= 35 Y= 14 K= 0	C= 50 M= 25 Y= 10 K= 0	C= 30 M= 15 Y= 6 K= 0	C= 10 M= 5 Y= 2 K= 0
C= 100 M= 50 Y= 50 K= 0	C= 70 M= 35 Y= 35 K= 0	C= 50 M= 25 Y= 25 K= 0	C= 30 M= 15 Y= 15 K= 0	C= 10 M= 5 Y= 5 K= 0
C= 100 M= 50 Y= 70 K= 0	C= 70 M= 35 Y= 49 K= 0	C= 50 M= 25 Y= 35 K= 0	C= 30 M= 15 Y= 21 K= 0	C= 10 M= 5 Y= 7 K= 0

Violet Hues

Violets can easily become blues if the values of "C" and "M" are not close. Adding "Y" will effectively gray down the color, however, it is important to make sure that too much "Y" isn't used if the color is made up of mostly "M" - this will result in the color becoming reddish or orange in hue.

C= 75 M= 100 Y= 0 K= 0	C= 53 M= 70 Y= 0 K= 0	C= 38 M= 50 Y= 0 K= 0	C= 23 M= 30 Y= 0 K= 0	C= 8 M= 10 Y= 0 K= 0
C= 75 M= 100 Y= 20 K= 0	C= 53 M= 70 Y= 14 K= 0	C= 38 M= 50 Y= 10 K= 0	C= 23 M= 30 Y= 6 K= 0	C= 8 M= 10 Y= 2 K= 0
C= 75 M= 100 Y= 50 K= 0	C= 53 M= 70 Y= 35 K= 0	C= 38 M= 50 Y= 25 K= 0	C= 23 M= 30 Y= 15 K= 0	C= 8 M= 10 Y= 5 K= 0
C= 75 M= 100 Y= 70 K= 0	C= 53 M= 70 Y= 49 K= 0	C= 38 M= 50 Y= 35 K= 0	C= 23 M= 30 Y= 21 K= 0	C= 8 M= 10 Y= 7 K= 0

Pink Hues

The trick to getting the right mix for your pink color is to ALWAYS be sure to use mostly "M". Adding "C" will help to darken the color while adding "Y" will mostly only turn the color red.

C= 10 M= 100 Y= 0 K= 0	C= 7 M= 70 Y= 0 K= 0	C= 5 M= 50 Y= 0 K= 0	C= 3 M= 30 Y= 0 K= 0	C= 1 M= 10 Y= 0 K= 0
C= 10 M= 100 Y= 20 K= 0	C= 7 M= 70 Y= 14 K= 0	C= 5 M= 50 Y= 10 K= 0	C= 3 M= 30 Y= 6 K= 0	C= 1 M= 10 Y= 2 K= 0
C= 10 M= 100 Y= 50 K= 0	C= 7 M= 70 Y= 35 K= 0	C= 5 M= 50 Y= 25 K= 0	C= 3 M= 30 Y= 15 K= 0	C= 1 M= 10 Y= 5 K= 0
C= 10 M= 100 Y= 70 K= 0	C= 7 M= 70 Y= 49 K= 0	C= 5 M= 50 Y= 35 K= 0	C= 3 M= 30 Y= 21 K= 0	C= 1 M= 10 Y= 7 K= 0

Bright Colors

Try using these color mixes when you are looking for very bright, rainbow-like colors. Please note that there are many other CMYK colors available and that the ones presented on this sheet are either for reference or to help improve our customers' understanding of 4-color process printing. Feel free to mix any color you like, but always be conscious of the numeric values and how they translate once printed...THANK YOU!

C= 0 M= 100 Y= 100 K= 0	C= 0 M= 57 Y= 100 K= 0	C= 0 M= 27 Y= 100 K= 0	C= 0 M= 7 Y= 100 K= 0	C= 100 M= 0 Y= 100 K= 0
C= 100 M= 15 Y= 0 K= 0	C= 100 M= 70 Y= 0 K= 0	C= 60 M= 100 Y= 0 K= 0	C= 5 M= 100 Y= 0 K= 0	C= 0 M= 30 Y= 0 K= 0

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