



## WHAT COLOR MODE DO I USE?

RGB, CMYK, PMS, OR ALL OF THEM?

Color is an absolute must for your label design. However, getting your branded color to print the same every time is an even bigger task. To ensure the colors print as you intended them to, you need to set up your files using the correct color profile or mode.

### RGB, CMYK, and PMS

Do you know the different color profiles (modes) commonly used or not used in printing? There are 3 main color profiles commonly used in Illustrator. This how-to is an overview of those color profiles and how to use them or not use them.

**RGB or Red, Green, and Blue** color profile creates vibrant colors using only those 3 colors. A tv, monitor, phone, or any other electronic screen utilizes this color profile. Do not use this color profile when sending files to a printer.

RGB



RGB is the perfect profile to use when your design is intended to be in a digital setting. Any file used online, whether on social media, on your website, an email, or any visual content, should be created in RGB. Files that originate in RGB and then get converted to CMYK are often not the color intended and can be very disappointing.

- ❖ Stock art (photos or illustrations) downloaded from the internet are usually set up in the RGB profile.

**CMYK or Cyan, Magenta, Yellow, and Black** color profile creates colors using only those 4 colors. CMYK is used in the printing of physical products. For example, business cards, custom labels, advertising, and packaging should be created in CMYK. Creating your files in CMYK from the start ensures that your final design will not have any unforeseen color conversions or shifts.

CMYK



**PMS or Pantone Matching System** was developed in the '60s to ensure every printer could print the exact same color regardless of the press being used.

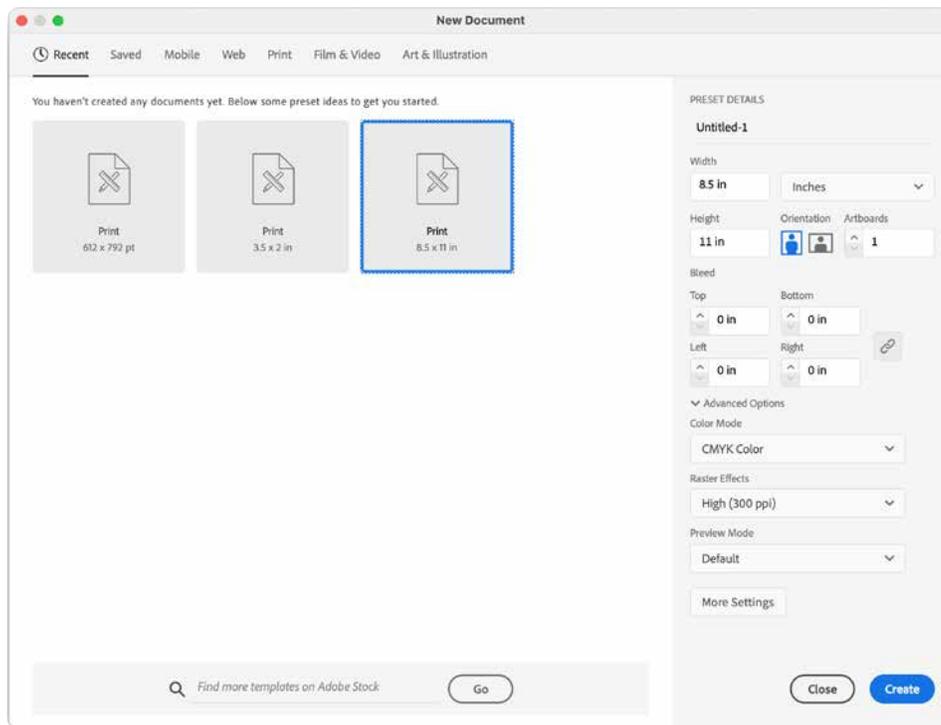
When printed, PMS colors are considered spot colors unless converted to CMYK. While a simple process, some PMS colors convert rather well to CMYK. However, many colors do not— oranges are especially known to turn brown when converted. So, if your brand has a bright orange, PMS 021, for example, chances are good that you will always need to print an additional spot color to ensure your orange stays true to color.

## What Color Profile do I use?

When you are creating files for print you will always use the CMYK color profile. You can add PMS colors to the file if necessary.

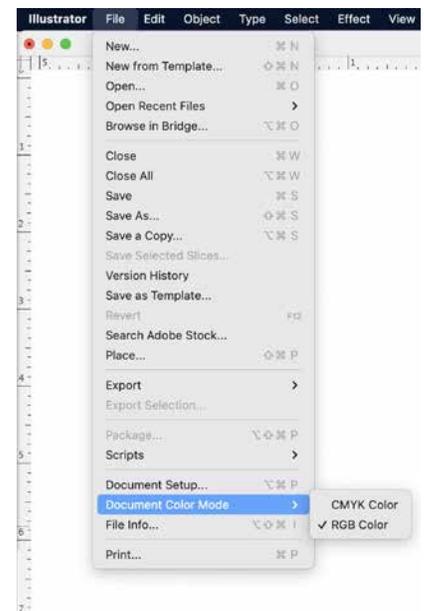
## How to set up your Illustrator file, the preferred program, for printing using CMYK.

- ❑ 1. Create a new document.
- ❑ 2. Set the desired **Width** and **Height**, **Orientation**, **Artboards**, **Bleed**, and any other settings
- ❑ 3. Under **Advanced Options**, set **Color Mode** to **CMYK Color**.
- ❑ 4. Start designing.



## How to check what color mode or profile an existing Illustrator file is in.

- ❑ 1. **File > Document Color Mode**
- ❑ 2. If **RGB Color** is selected, select **CMYK Color**.
  - ❖ There will more than likely be a color shift, and you may need to adjust each color accordingly. Keep in mind that the bright colors you see in RGB mode may become muted.



## How to find and use PMS colors

### ❑ 1. Window > Swatch Libraries > Color Books > Pantone + ...

❖ In the pop-up menu select the Pantone + Color Book of your choice.

❖ We recommend that you use a physical PMS book to choose your color - they may not always display correctly on your screen, or your monitor may not be calibrated correctly.

❖ However, you also need to keep in mind, an old PMS book may have faded over the years. In addition, Pantone adds many new colors every year as well. Therefore, you should replace your Pantone books every 2 to 3 years.

❖ There are several PMS books to choose colors from. To get the most up to date books, visit <https://www.pantone.com/color-systems/for-graphic-design>

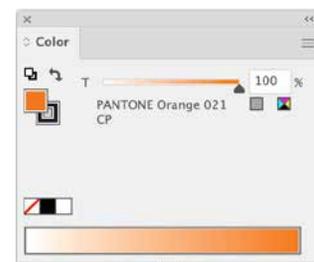
❖ If your version of Illustrator doesn't have the latest Pantone Library or to verify if you have the latest library, visit <https://helpx.adobe.com/illustrator/kb/pantone-plus.html>



### ❑ 2. Choose and select the PMS color by typing the number in the search bar



### ❑ 3. That color will now appear in the **Color** and **Swatch Palettes**



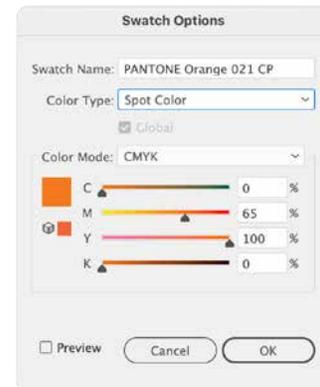
## PMS Colors print as spot colors or convert to CMYK?

Now that you have the colors for your design, you need to decide if the PMS colors will print as spot colors or if they will print in CMYK. There are advantages and disadvantages to both.

- ❖ If you chose to print as spot colors, you will get the exact color that you want, however, that could add cost to your print job.
- ❖ If you choose to convert the PMS colors to CMYK, there could be a shift in color and may not print as intended. However, the print cost will be lower.

### Print as spot colors:

- ❑ 1. Under the **Swatches** dialogue box - double click on the color you want to verify.
- ❑ 2. Under **Swatch Options** > **Color Type** > **Spot Color** should be selected.



### Convert and Print in CMYK

- ❑ 1. Under the **Swatches** dialogue box - double click on the color you want to verify.
- ❑ 2. Under **Swatch Options** > **Color Type** > **Process Color** should be selected.

- ❖ Keep in mind that converting colors from PMS to CMYK may have a significant color shift, especially in the oranges.



For an in-depth look at each color space, visit <https://helpx.adobe.com/illustrator/using/color.html>

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If you have any prepress questions  
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