

DTP PRINTING TECHNOLOGIES

Colour Systems

RGB (RED, GREEN & BLUE)

Where is this standard applied?

- The RGB colour model is an additive colour model in which red, green and blue are added together in various ways to reproduce a broad array of colours.
- The name of the model comes from the initials of the three additive primary colours, red, green and blue.
- The main purpose of the RGB colour model is for the sensing, representation and display of images in electronic systems, such as televisions and computers, though it has also been used in conventional photography.

RGB (RED, GREEN & BLUE)

What are its special features?

- Typical RGB input devices are colour TV and video cameras, image scanners, video games and digital cameras. Typical RGB output devices are TV sets of various technologies (CRT, LCD, Plasma, OLED, etc.), computer and mobile phone displays, video projectors, multicolour LED displays.
- Each pixel on the screen is built by driving three small and very close but still separated RGB light sources. At common viewing distance, the separate sources are indistinguishable, which tricks the eye to see a given solid colour.
- All the pixels together arranged in the rectangular screen surface conforms the colour image.

CMYK (CYAN, MAGENTA, YELLOW, BLACK (KEY COLOUR))

Where is this standard applied?

- The CMYK colour model is a subtractive colour model, used in coloured printing and is also used to describe the printing process itself. CMYK refers to the four inks used in some colour printing: cyan, magenta, yellow and black.

CMYK (CYAN, MAGENTA, YELLOW, BLACK (KEY COLOUR))

What are its special features?

- CMYK colour space, traditionally, when the final proof is agreed the designer will make up “Colour Separations”.
- These split the image up into its constituent colours for four-colour-printing.
- There will be one separation each for Cyan (Blue), Magenta (Red), Yellow and Key (Black), known as CMYK colour.
- In theory, there need only be three colours in printing because every colour is made up from the three primary colours, red, yellow and blue.
- As a result of the impurities of printing ink and the reflective qualities of paper, the three colours mixed would make up a muddy brown, so a black separation is added to give definition.

PANTONE

Where is this standard applied?

- The Pantone Matching System (PMS) is a proprietary colour space used in a variety of industries, primarily printing, though sometimes in the manufacture of coloured paint, fabric and plastics.
- The Pantone colour guides have been widely adopted and are used by artists, designers, printers, manufacturers, marketers and clients in all industries worldwide for accurate colour identification, design specification, quality control and communication.

PANTONE

What are its special features?

- The Pantone ® name is known worldwide as the standard language for colour communication from designer to manufacturer to retailer to customer.
- The Pantone Colour Matching System is largely a standardised colour reproduction system. By standardising the colours, different manufacturers in different locations can all refer to the Pantone system to make sure colours match without contact with one another.
- Pantone can be used for both CMYK and RGB colour spaces. Colour variance also occurs based on the paper stock used (coated, matte or uncoated).