PANTONE®

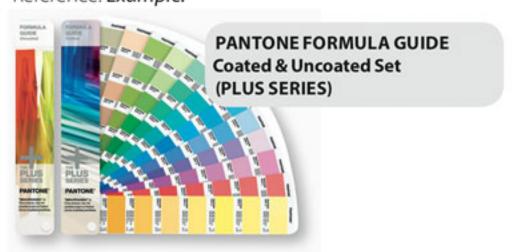
Accuracy, quality and predictable results in the printing industry and for color specification



PANTONE products Overview

1 PANTONE FORMULA GUIDES-Spot Color

PANTONE FORMULA GUIDES are fundamental products of the PMS (PANTONE MATCHING SYSTEM®), used for selecting, specifying and matching spot colors with a PANTONE Reference. *Example:*



PANTONE COLOR BRIDGE Guides - Solid to Process Color

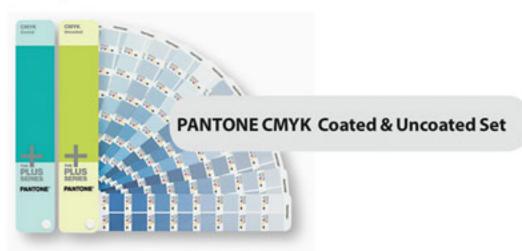
COLOR BRIDGE guides compare Spot PANTONE Colors with their closest four-color (CMYK) process matches. *Examples:*



3 PANTONE CMYK Guides

Contain CMYK process color swatches, chromatically arranged for easy transitions between colors and a more intuitive selection. These guides are an ideal way to visualize, communicate and control colors. The colors are separate from the PANTONE MATCHING SYSTEM®.

Example:



4. Specialty Colors

Large family of color guides and chips of specialty PANTONE COLORS, printed on different paper types, for a wide variety of usages.

PANTONE PASTELS & NEONS Coated & Uncoated
PANTONE PREMIUM METALLICS Coated (PLUS SERIES)
PANTONE METALLICS Coated

PANTONE COLOR MANAGER Software



PANTONE COLOR MANAGER Software features more than 11,000 of the latest PANTONE PLUS SERIES and Fashion & Home color libraries. The libraries can then be exported into major design applications. The

software also lets you use ICC Profiles to create your own color-managed PANTONE color libraries. Includes a feature to convert spot colors to CMYK based on loaded profiles.

Available Libraries :

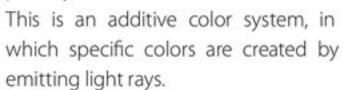
- PANTONE FORMULA GUIDE Coated & Uncoated
- · PANTONE COLOR BRIDGE® Coated & Uncoated
- PANTONE PASTELS & NEONS Coated & Uncoated
- PANTONE PREMIUM METALLICS Coated + METALLICS Coated
- PANTONE PREMIONIME IALLICS COALED + METAL
 PANTONE CMYK Coated & Uncoated
- · PANTONE FASHION HOME + INTERIORS paper
- PANTONE FASHION + HOME cotton
- PANTONE FASHION + HOME nylon brights

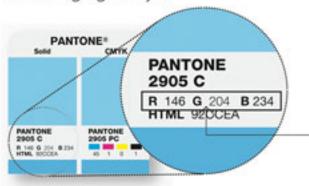
Spot colors have been classified in several color systems which enable exact identification of a specific color. The first PANTONE guides were launched in 1963. After a long development process the current color guides contains 1,755 individual colors which are chromatically arranged, with a well arranged color locator index. The PANTONE MATCHING SYSTEM® is an internationally recognized color communication system. A spot color is used with original composition of inks and pigments. In the printing industry we apply spot colors when a specific tint cannot be reproduced using CMYK - C (Cyan), M (Magenta), Y (Yellow), and K (Key Black).

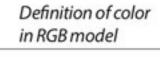
Different Color **Spaces Description**

RGB

Color is created from three primary colors: R - Red, G - Green and B - Blue. They are defined in 8-bit color depth, which gives 0-255 tints for every primary color.



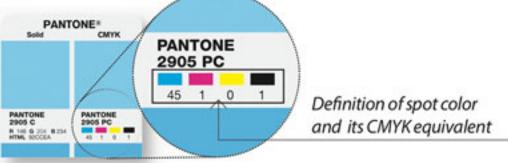




CMYK

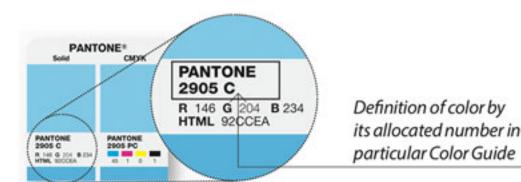
created from Color is four components: C (Cyan), M (Magenta), Y (Yellow), and K (Key Black), with optical density from 0-100%. This is a subtractive color system, in which specific colors are created by





PANTONE (Spot colors)

The PANTONE Color is defined by its distinct number in a specific PANTONE Color Guide.

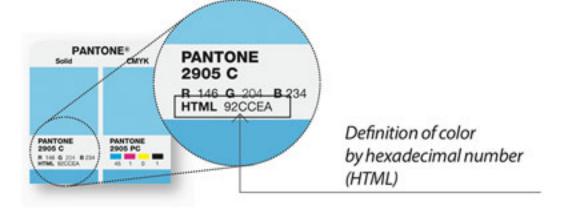


Mixing inks according PANTONE

Individual Spot color is mixed from 18 base pigments in specified amounts and a percentage formulation according to the PANTONE FORMULA GUIDES. Then PANTONE Transparent White is added.

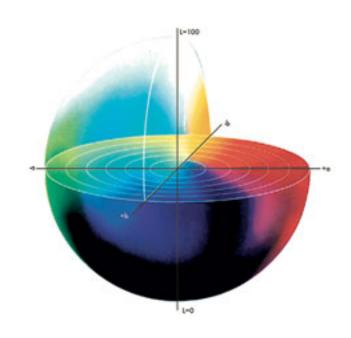
HTML (WEB colors)

Colors are specified in hexadecimal format, the bytes represent the red, green and blue components of the color. This represents the least (0) to the most (255) intense level of each of the color components. For example, the hexadecimal number for Red is: 255/0/0 = FF0000, and for Blue it is: 0/0/255 = 0000FF.



CIE L* a* b*

A device-independent model, where color is specified by three coordinates in color space, e.g. L = 60, a = 91, b = -20.



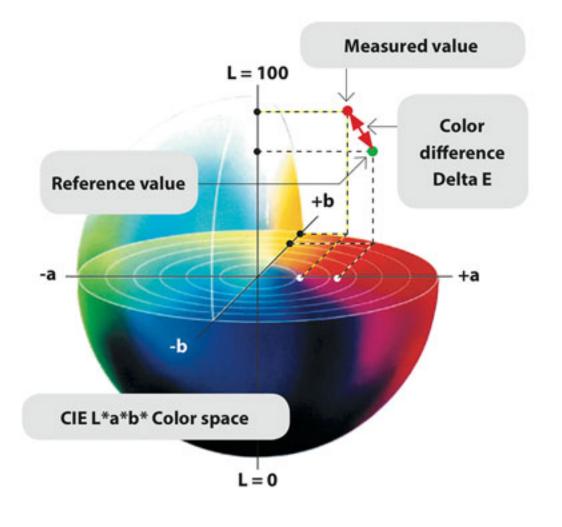
Color Measurement and Visual Control

A device-independent model CIE L*a*b* (CIELAB) is widely accepted for color measurement.

The three coordinates of CIE LAB represent a unique position of color in this three-dimensional model.

Color difference Delta E

The most important thing during color control is matching the reference color provided by the customer in pre-press



and the print results. We are able to measure the color difference between defined references and a sample in L*a*b* values. The bigger the distance between colors in the CIE LAB space, the bigger the Delta E value and there becomes a visible difference between the colors.

PANTONE CAPSURE™

PANTONE CAPSURE is a portable device which allows the user to capture color from almost any surface including small, patterned textures and textiles. It then matches it quickly and accurately to an official PANTONE Color.

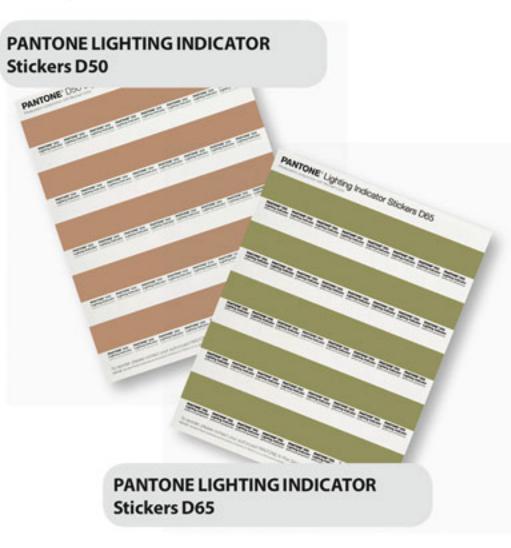


PANTONE LIGHTING INDICATOR Stickers D50 & D65

Making a color decision under the wrong lighting conditions can lead to costly and time-consuming mistakes. PANTONE LIGHTING INDICATOR Stickers tell you at a glance whether your ambient lighting conditions are right for accurate color evaluation.

Available for D50 (5,000 K) lighting conditions, recommended for the graphic industry, and for D65 (6,500 K) lighting conditions, recommended for product design, production, and photography.

Each page contains 40 stickers.



1.

PANTONE Spot Colors

PANTONE FORMULA GUIDES for selecting, specifying and matching printed color with PANTONE references.

The fundamental product of the PANTONE MATCHING SYSTEM® is the PANTONE FORMULA GUIDE with 1755 spot colors, on Coated and Uncoated paper.

There is a special subset of spot colors from color guides which cannot be simulated with the CMYK printing process.

PANTONE FORMULA GUIDES Coated & Uncoated (PLUS SERIES)

FORMULA GUIDE

PLUS

PANTONE'

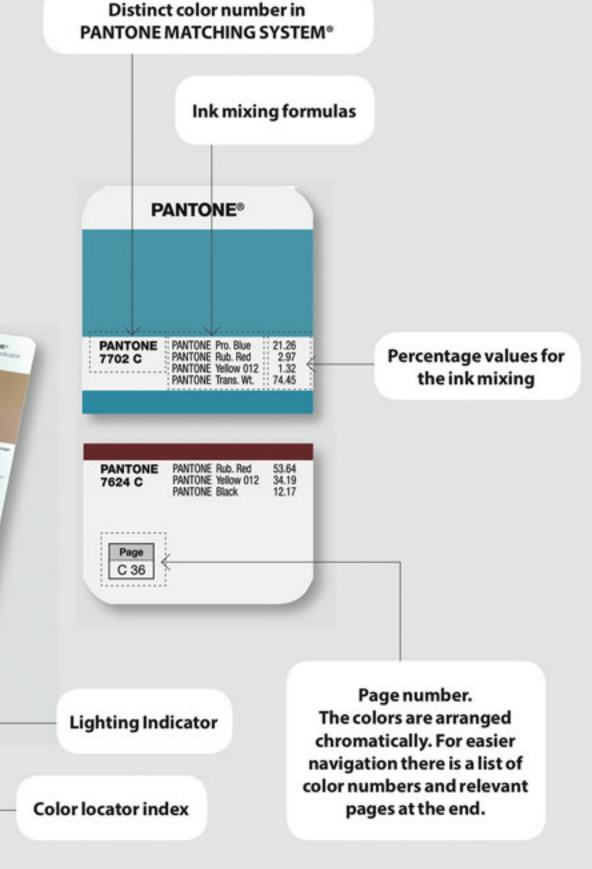
(PLUS SERIES)

PANTONE FORMULA GUIDE Coated & Uncoated

PANTONE"

Set of two guides, printed on Coated and Uncoated paper in a portable fan guide format. The world wide color communication system for graphic designers, reproduction and printing houses. Includes PANTONE COLOR MANAGER Software for updating PANTONE Colors in popular design applications. Guides must be registered in order to access the free software.

Detail of color sheet and specification of spot color.



PANTONE SOLID COLOR Set

Set includes: FORMULA GUIDE Coated FORMULA GUIDE Uncoated SOLID CHIPS Coated SOLID CHIPS Uncoated



PANTONE STARTER GUIDE Coated & Uncoated

The Starter Guide contains selections from all PANTONE PLUS SERIES COLOR libraries:

PASTELS & NEONS Coated & Uncoated PREMIUM METALLICS Coated METALLICS Coated

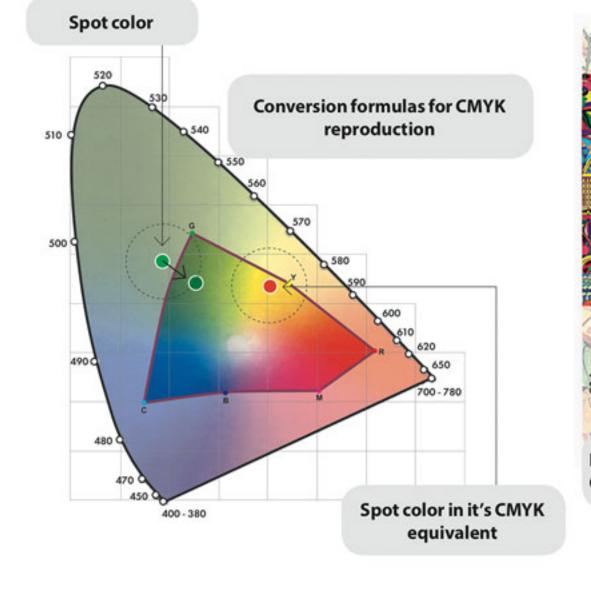
FORMULA GUIDES Colors Coated & Uncoated

In total the guide contains 543 PANTONE Colors. Pages are arranged chromatically, in color families. An index is located at the back, to assist in locating specific colors.



2. PANTONE Spot and Process Color

The guide displays PANTONE MATCHING SYSTEM® Colors reproduced in CMYK on Coated/Uncoated paper in a side-by-side comparison.

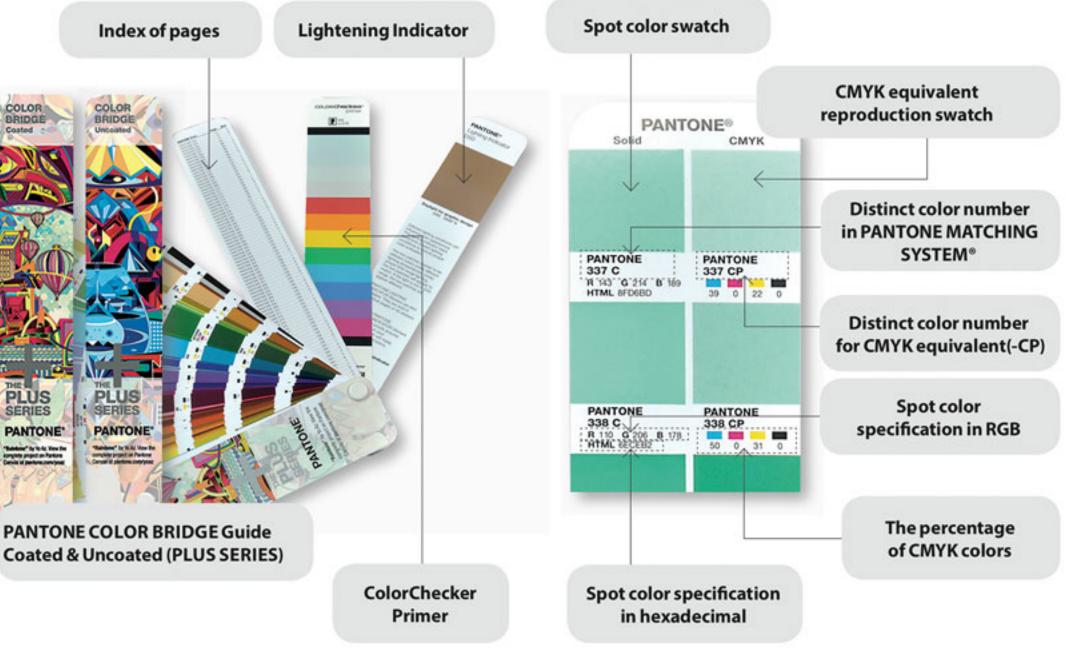


PANTONE COLOR BRIDGE® Guide Coated & Uncoated (PLUS SERIES)

The PANTONE COLOR BRIDGE® displays 1,733 PANTONE Colors in a fan guide format on Coated and Uncoated stock alongside their closest four-color process match. The CMYK screen tint percentages are provided for each process color, also RGB and HTML values are included for the spot colors. Including conversion formulas for multiple color spaces in a

single guide makes it easier for designers to evaluate color choices when repurposing content for different media. The guides include PANTONE COLOR MANAGER Software for updating PANTONE Libraries, ColorChecker® Lighting Indicator and ColorChecker Primer for color correcting images. Guides must be registered in order to access the free software.

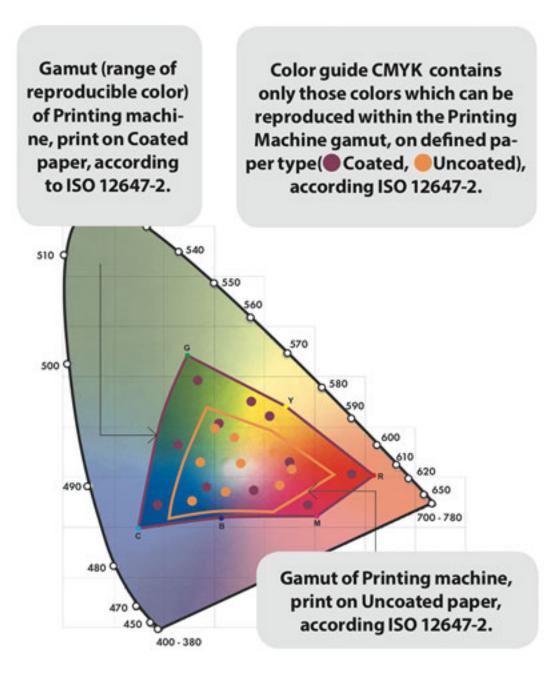
Detail of color sheet for specification and explanation.



3. PANTONE CMYK Guides

Contain standardized colors reproduced in the CMYK method of printing color by using four inks:

C (Cyan), M (Magenta), Y (Yellow), and K (Key Black).

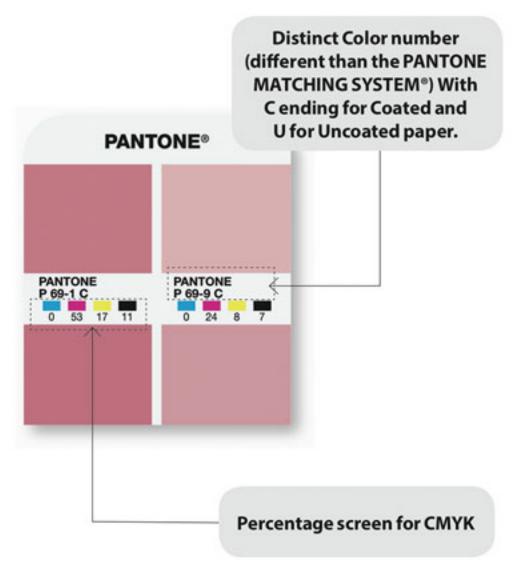


PANTONE CMYK Guide Set Coated & Uncoated (PLUS SERIES)

A two-guide set contains 2,868 colors, with CMYK screen tint percentages. Colors are chromatically arranged, printed on Coated and Uncoated paper. Includes PANTONE COLOR MANAGER Software for updating PANTONE colors libraries and PANTONE ColorChecker® Lighting Indicator. Guides must be registered in order to access the free software. Production of the guide is in compliance with ISO ink standard 2846-1, and where applicable, ISO 12647-2 /Amd 1:2007.



Detail of color sheet for specification and explanation.



4 PANTONE Specialty Colors

For specification and matching spot color reproduced for special-effect inks.

PANTONE METALLICS Coated (PLUS SERIES)

A fan guide of 301 metallics colors, printed on coated paper. The swatch size is 42 mm × 20 mm. The printing result is affected significantly by paper quality, on uncoated paper the metallic effect is lost. This guide includes PANTONE COLOR MANAGER Software for updating PANTONE Colors and ColorChecker® Lighting Indicator. Guides must be registered in order to access the free software.

Example of color description – PANTONE 8820 C.

PANTONE METALLIC CHIPS Coated (PLUS SERIES)

This tear-out chip book is the perfect solution for color communication. It contains 301 metallic colors, each color is printed on an individual loose-leaf-style page containing six tear-out chips. Individual replacement pages are available for replenishing frequently used colors. Chips are printed on high quality coated paper.





PANTONE PREMIUM METALLICS Coated (PLUS SERIES)

The PREMIUM METALLICS Guide is a new guide of 300 dazzling metallic colors. These metallic colors have a greater shine and can be easily coated without any loss in luster. They have a longer life after printing without fear of tarnishing or blemishing. This guide includes PANTONE COLOR MANAGER Software for updating PANTONE Colors and ColorChecker® Lighting Indicator. Available on coated stock only. Guides must be registered in order to access the free software.

Example of color description - PANTONE 10101 C.

PANTONE PREMIUM METALLIC CHIPS Coated (PLUS SERIES)

The new PLUS SERIES PREMIUM METALLICS CHIPS Book features 300 metallics colors.

Each color is printed on an individual loose-leaf-style page containing six tear-out chips. Available on coated stock only.





PANTONE PASTELS & NEONS CHIPS Coated & Uncoated (PLUS SERIES)

The guide contains 154 pastel colors and a newly expanded range of 56 neon colors. Coated and Uncoated stocks are together in one convenient guide. This guide includes PANTONE COLOR MANAGER Software for updating PANTONE Colors and ColorChecker® Lighting Indicator. Guides must be registered in order to access the free software.

Example of color description – PANTONE 9140 C or PANTONE 9140 U.

PANTONE PASTELS & NEONS Coated & Uncoated (PLUS SERIES)

This tear-out chip book is the perfect solution for color communication. It contains 154 pastel colors and a newly expanded range of 56 neon colors. Each color is printed on an individual loose-leaf-style page containing six tear-out chips. Individual replacement pages are available for replenishing frequently used colors. Coated and Uncoated stocks are together in one convenient chip book.

The Uncoated paper part of Guide

PANTONE PASTELS & NEONS Coated & Uncoated



