

**CO LOR SYSTEM™**

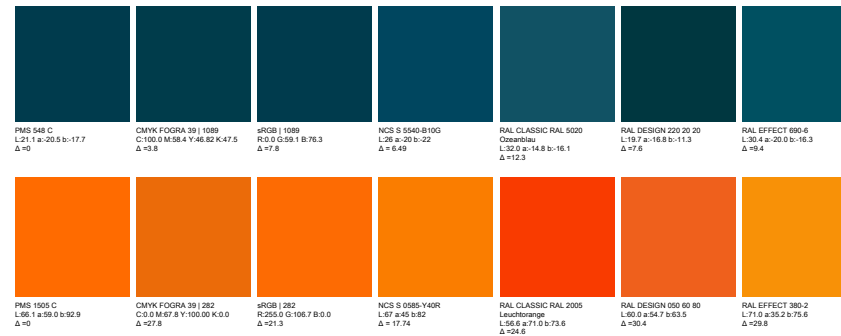
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**Color System™ is a guide to finding the nearest color  
across the most widely used color swatch books from Pantone, RAL and NCS.**

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**X**



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## Color System™

Color System is a simple method of finding the nearest color across the most widely used color swatch books from Pantone, RAL and NCS. The system also displays the color in CMYK and RGB.



[Pantone®](#) is probably the most used color guide for graphic use. The most widely used is the Pantone Plus (PMS) Formula Guide Coated. In addition, there is an Uncoated version as well as fans for textiles, CMYK colors, Pastel colors etc.



[RAL](#) is a color matching system used in Europe, managed by the German RAL GmbH (RAL non-profit LLC), which is a subsidiary of the German RAL Institute. In everyday speech, RAL refers to:

The RAL Classic system, which is mainly used for varnish and powder coating, but now there are also reference panels for plastic. Also included here:

RAL Effect (RAL Effect consists of 420 solid colors and 70 metallic colors. It is the first collection from RAL based on water-based paint systems) and:

RAL Design (in 1993 this was introduced as a new color matching system tailored to the needs of architects, designers and advertisers).



[NCS](#) Natural Color System (NCS) is an international color system developed by the Swedish organization Scandinavian Color Institute (Skandinaviska Färginstitutet AB) in Stockholm. The system is based on process theories of how the human eye perceives colors.

NCS determines and controls colors within architecture, design and marketing.

# Color Systems

Color System™ is a visual and practical guide to finding the nearest color within NCS and RAL color the systems based on Pantone Plus (PMS) Formula Guide Coated.

Reference color

1089							
<b>Pantone Plus (PMS)</b>	<b>CMYK FOGRA 39</b>	<b>sRGB</b>	<b>NCS</b>	<b>RAL Classic</b>	<b>RAL Design</b>	<b>RAL Effect</b>	
PMS 548 C L:21.1 a:-20.5 b:-17.7 Δ=0	CMYK FOGRA 39   1089 C:100.0 M:58.4 Y:46.82 K:47.5 Δ=3.8	sRGB   1089 R:0.0 G:59.1 B:76.3 Δ=7.8	NCS S 5540-B10G L:26 a:-20 b:-22 Δ=6.49	RAL CLASSIC RAL 5020 Ozeanblau L:32.0 a:-14.8 b:-16.1 Δ=12.3	RAL DESIGN 220 20 20 L:19.7 a:-16.8 b:-11.3 Δ=7.6	RAL EFFECT 690-6 L:30.4 a:-20.0 b:-16.3 Δ=9.4	

The small square is a reference color in Color System™ (for the sake of a later digitally printed version, where the Color System number will be used for copyright reasons) the other colors are the closest color to:

Pantone Plus (PMS) Formula Guide Coated contains 2239 colors.

**CMYK FOGRA 39** - standard for both Offset and digital 4 color printing - note this translation is more accurate than in Adobe Color Picker because the calculation is done with decimals and not whole numbers as in Adobe Color Picker.

**sRGB** - standard for screen display - note this translation is more accurate than in Adobe Color Picker because the calculation is done with decimals and not whole numbers as in Color Picker.

**NCS** (Natural Color System) 1950 colors = OK match on most colors for Pantone.

**RAL Classic** 213 colors = with so few colors, there is often a bad match on most colors for Pantone.

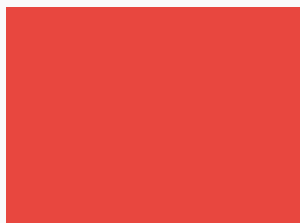
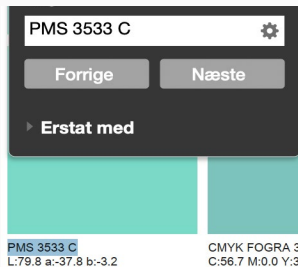
**RAL Design** 1625 colors = OK match on most colors for Pantone.

**RAL Effect** 420 colors = with so few colors, there is often a bad match on most colors for Pantone.

# Usage

- When there is a need for logo colors / visual identity across media, printed, digital, foil for cars, signs, painted surfaces, merchandise etc.
- Architects in connection with the decoration of buildings indoors and outdoors.
- Companies that manufacture merchandise for customers with strict visual identity.
- Brandowners with design guide for company colors.
- Decision tool for selecting logo color, which should be able to work across platforms as mentioned in the first example.

**IMPORTANT!**



CMYK FOGRA 39 | 465  
C:0.0 M:83.0 Y:73.35 K:0.0  
 $\Delta = 12.9$

## Practical use

Search for Pantone, NCS or RAL color with their full code / number via control F (Windows) or command F (Mac) - search for the ENTIRE name of the color otherwise you will find many with the subset of name / number. Pantone is the reference, so if you search for RAL 1018 Zinngelb, it occurs several times, as Pantone Coated contains several shades of yellow, which this RAL color is closest to.

## L\*a\*b\* and DeltaE

The L\*a\*b\* value\* for each color system shows below the field. Via Color Picker in the Adobe CC RGB, CMYK and WEB code can be retrieved if needed.

The DeltaE (dE or  $\Delta$ ) deviation from the reference (which is the Pantone Plus (PMS) Formula Guide Coated field) can be read below the color field (the dE deviation of  $\Delta 3$  is generally considered to be an "invisible" hue deviation).

\*The lab value is a unique description of a color in a coordinate system which is independent of different color spaces such as CMYK and RGB.

# Best Practice Working with Logo & Brand Color

## Prerequisites

### Pantone Color Manager

### Calibrated monitor

### Correct settings in Adobe Creative Suite

### Use a graphic monitor

### How to choose between CMYK and spot colors

- This mini-guide is structured with links, so that products and explanations are elaborated in the links.
- Download and install Pantone Color Manager.
- Make sure your screen is profiled - you will need a measuring instrument either i1 Display Pro or i1 basic Pro 3
- Your Color Settings must be synchronized for all Adobe applications. To do this, launch Adobe Bridge and go to Edit/Creative Suite Color Settings. Choose Europe Prepress 3 when working with Offset and digital CMYK. Remember to change from Adobe RGB to sRGB when working with WEB, sRGB is still the standard for WEB display.
- An entry level monitor or medium monitor might be used for graphic. But if you want to work professionally with colors, we recommend Eizo
- It is important to decide from the beginning whether the color should be printed in CMYK or SPOT. For most customers who need a logo color, CMYK will be the right choice. Here, the printed version of the color will often take place on traditional Offset printing or digital print (often on an office printer or similar). In packaging design, spot colors (Pantone) are most often used to reproduce brand colors accurately and without screening. Effects such as gold, silver and partial lacquer must also be defined as spot colors (layers) in order to be handled in the printing process.

# Guide for Choosing Spot or CMYK Colors for Visual Identity, Logo and Brands

**Where should the color be reproduced?  
On what should the color be reproduced?**

Check which media the customer should use in the communication. Ex. magazines, banners, car wrapping, painted surfaces (NCS), merchandise and WEB.

Here, the Color System Guide provides a unique opportunity to select a color that can be reproduced with a close match to all of the above media and surfaces!

By far the most common for printing is CMYK printed on traditional Offset printing or digital CMYK.

Always start by assessing the color via Color System™ (or Pantone Color Bridge which is not accurate though! It shows a general CMYK value outside standard).

Color System™ shows the exact difference between CMYK and SPOT.



If the customer wants a "vivid" color, e.g. a strong orange, it is clear that the color is unattainable in a CMYK color space. The customer must then either choose a color that is within the CMYK color space or accept the extra price that an extra color in the printed matter costs!

## FAQ

**Can you send a PDF in CMYK to the customer for color approval?**

No, not as a starting point, the customer probably does not have a calibrated screen and if you send a print from the office printer, it certainly does not look like the finished print. If the choice is CMYK, the color must be communicated to the customer as CMYK, make sure the customer has a corresponding Color System guide or send printed proof to the customer in CMYK.

**Can a color be outside the monitor color space?**

A color can often be outside the CMYK color space, but can it also be outside the screen color space? You can also check if the selected color can be reproduced with normal screen color space. This is important for both CMYK and SPOT color choices. Use Pantone Color Manager to check this.

**How to communicate color?**

Color can only be communicated from e.g. designer to customer if a number of prerequisites are met. Here is the list of prerequisites that must be present for all parties:

- Calibrated (profiled) monitor of graphic quality.
- Correct viewing light (5000 kelvin) for assessment of print and proof.
- Control of viewing lights e.g. using Pantone Light Indicator or i1 basic Pro 3.
- Correct color space for the task (CMYK and/or spot or RGB).
- Certified proofing (can be omitted if calibrated graphic quality screen is available from all parties).

**IMPORTANT!**

Many agencies and graphic designers produce a mini-design guide for the client. The RGB, WEB and CMYK values are entered here. REMEMBER to use the CMYK value from the Color System guide and NOT the value from the Pantone Bridge Guide. The Pantone Bridge CMYK guide uses a generic profile which causes the CMYK values to lack precision compared to Color System™.



## FAQ

### **When to use spot colors or Pantone colors?**

In the case of packaging design, extra color in the print process is often used, so SPOT must be chosen. The extra spot colors are mixed and printed in a separate printing unit. Digital printing with e.g. HP Indigo, which has up to 3 extra colors (extended gamut) - demands for spot colors. Remember that poster production on e.g. Epson, Canon or Roland, which have 8-11 colors, also allow for extended gamut = extended color space! Several digital printers have supplemented CMYK with e.g. Orange, Green and Violet = CMYK + OGV or CMYK + RGB. This makes the ability to print between 95-99% of all Pantone Formula Guide Coated colors.

### **How do I make sure that the color accurately communicated and printed?**

When the new logo / brand colors are printed, it must be done by the graphic designer / customer / printing company - all - being in possession of the right guide, e.g. Color System Guide, Pantone Formula Guide or Swatch chips sent with the print job. The chips are available in color series or as a complete selection.

### **Do we have a fandeck with extended color space?**

Extended Gamut ie. packaging printing or digital printing consisting of CMYK with Orange, Green and Violet = CMYKOGV also has an independent fandeck.

# Why You should use Color System Guide!

It is important first and foremost to decide which media the customer should communicate his color on.  
For example:



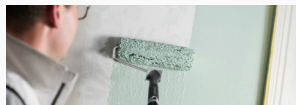
Magazines and brochures - CMYK & Spot Colors (Pantone)



Banners - CMYK



Car wrapping - RAL



Paint and coatings - NCS & RAL Effect



Merchandise - Spot colors (Pantone), RAL & CMYK



WEB - sRGB

The Color System Guide provides a unique opportunity to select a color that can be reproduced with a close match to all of the above media and surfaces.



100



PMS Yellow 012 C  
L:87.6 a:2.2 b:109.1  
Δ=0

CMYK FOGRA 39 | 100  
C:2.2 M:12.5 Y:100.00 K:0.1  
Δ=15.8

sRGB | 100  
R:255.0 G:214.5 B:0.0  
Δ=23.4

NCS S 0580-Y  
L:87 a:7 b:101  
Δ=9.40

RAL CLASSIC 1023  
Verkehrsgelb  
L:84.7 a:-1.3 b:84.5  
Δ=24.9

RAL DESIGN 090 80 90  
L:80.3 a:2.5 b:94.2  
Δ=16.6

RAL EFFECT 270-5  
L:77.8 a:10.8 b:90.9  
Δ=22.3

102



PMS Pink C  
L:51.0 a:72.7 b:-15.8  
Δ=0

CMYK FOGRA 39 | 102  
C:16.3 M:88.8 Y:0.00 K:0.0  
Δ=10.0

sRGB | 102  
R:219.4 G:38.3 B:150.7  
Δ=0.9

NCS S 1060-R30B  
L:58 a:54 b:-10  
Δ=20.79

RAL CLASSIC 4010 Telemagenta  
L:52.8 a:55.8 b:-5.9  
Δ=19.7

RAL DESIGN 350 50 50  
L:49.4 a:50.6 b:-7.9  
Δ=23.6

RAL EFFECT 510-5  
L:47.5 a:50.8 b:-3.0  
Δ=25.6

104



PMS Dark Blue C  
L:20.8 a:29.2 b:-68.5  
Δ=0

CMYK FOGRA 39 | 104  
C:100.0 M:85.5 Y:14.64 K:1.8  
Δ=31.1

sRGB | 104  
R:0.0 G:37.6 B:155.2  
Δ=1.2

NCS S 4055-R70B  
L:22 a:18 b:-47  
Δ=24.26

RAL CLASSIC 5002  
Ultramarinblau  
L:30.0 a:19.1 b:-45.6  
Δ=26.6

RAL DESIGN 290 30 40  
L:29.2 a:14.6 b:-39.1  
Δ=33.9

RAL EFFECT 590-6  
L:25.6 a:10.0 b:-40.0  
Δ=34.6

106



PMS 101 C  
L:91.8 a:-7.5 b:75.1  
Δ=0

CMYK FOGRA 39 | 106  
C:7.2 M:0.4 Y:78.70 K:0.0  
Δ=1.7

sRGB | 106  
R:247.3 G:232.7 B:71.5  
Δ=1.0

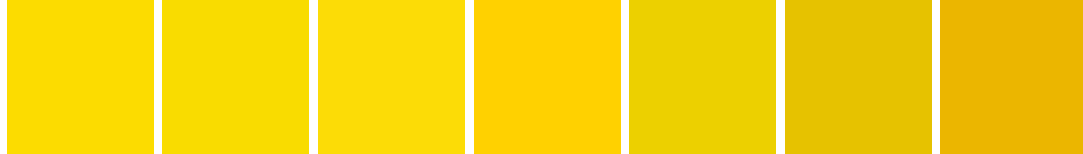
NCS S 0560-G90Y  
L:88 a:-4 b:72  
Δ=6.02

RAL CLASSIC 1018 Zinngelb  
L:89.7 a:-7.3 b:72.2  
Δ=3.6

RAL DESIGN 100 80 70  
L:80.5 a:-11.2 b:71.5  
Δ=12.4

RAL EFFECT 260-3  
L:85.3 a:-3.5 b:70.1  
Δ=9.1

108



PMS Yellow C  
L:89.0 a:-1.3 b:110.9  
Δ=0

CMYK FOGRA 39 | 108  
C:3.8 M:8.4 Y:100.00 K:0.0  
Δ=16.5

sRGB | 108  
R:254.4 G:220.7 B:0.0  
Δ=24.3

NCS S 0580-Y  
L:87 a:7 b:101  
Δ=13.05

RAL CLASSIC 1023  
Verkehrsgelb  
L:84.7 a:-1.3 b:84.5  
Δ=26.7

RAL DESIGN 090 80 90  
L:80.3 a:2.5 b:94.2  
Δ=19.2

RAL EFFECT 270-5  
L:77.8 a:10.8 b:90.9  
Δ=25.9

101



PMS Bright Red C  
L:57.5 a:72.5 b:61.7  
Δ=0

CMYK FOGRA 39 | 101  
C:0.0 M:85.3 Y:84.05 K:0.0  
Δ=15.4

sRGB | 101  
R:254.3 G:57.5 B:31.3  
Δ=1.1

NCS S 0585-Y80R  
L:52 a:70 b:60  
Δ=6.24

RAL CLASSIC 3024 Leuchtrrot  
L:53.3 a:74.9 b:72.3  
Δ=11.6

RAL DESIGN 050 60 80  
L:60.0 a:54.7 b:63.5  
Δ=18.1

RAL EFFECT 390-5  
L:51.0 a:54.6 b:58.0  
Δ=19.4

103



PMS Medium Purple C  
L:20.9 a:50.2 b:-59.3  
Δ=0

CMYK FOGRA 39 | 103  
C:89.6 M:100.0 Y:3.37 K:1.0  
Δ=23.0

sRGB | 103  
R:77.4 G:0.0 B:140.9  
Δ=1.6

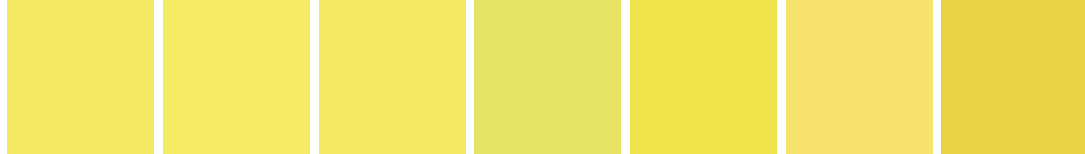
NCS S 3555-R60B  
L:28 a:26 b:-38  
Δ=32.97

RAL CLASSIC 5002  
Ultramarinblau  
L:30.0 a:19.1 b:-45.6  
Δ=35.1

RAL DESIGN 300 40 45  
L:38.7 a:22.3 b:-39.7  
Δ=38.4

RAL EFFECT 570-M  
L:41.9 a:22.6 b:-33.2  
Δ=43.4

105



PMS 100 C  
L:92.1 a:-7.6 b:65.8  
Δ=0

CMYK FOGRA 39 | 105  
C:7.5 M:0.5 Y:71.44 K:0.0  
Δ=1.2

sRGB | 105  
R:245.8 G:233.7 B:97.0  
Δ=1.0

NCS S 0550-G80Y  
L:89 a:-10 b:61  
Δ=6.15

RAL CLASSIC 1018 Zinngelb  
L:87.2 a:-7.3 b:72.2  
Δ=6.8

RAL DESIGN 095 90 59  
L:90.6 a:-3.0 b:59.9  
Δ=7.6

RAL EFFECT 260-3  
L:85.5 a:3.5 b:70.1  
Δ=9.0

107



PMS 102 C  
L:90.2 a:-4.9 b:106.3  
Δ=0

CMYK FOGRA 39 | 107  
C:5.7 M:4.0 Y:100.00 K:0.0  
Δ=10.9

sRGB | 107  
R:252.0 G:226.5 B:0.0  
Δ=19.0

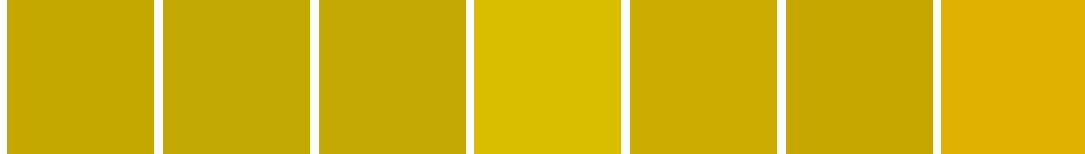
NCS S 0580-Y  
L:87 a:7 b:101  
Δ=13.40

RAL CLASSIC 1026 Leuchtgelb  
L:95.9 a:-19.0 b:92.0  
Δ=20.9

RAL DESIGN 090 80 90  
L:80.3 a:2.5 b:94.2  
Δ=17.3

RAL EFFECT 270-5  
L:77.8 a:10.8 b:90.9  
Δ=25.2

109



PMS 103 C  
L:70.2 a:0.5 b:83.7  
Δ=0

CMYK FOGRA 39 | 109  
C:23.8 M:25.4 Y:100.00 K:7.5  
Δ=12.7

sRGB | 109  
R:197.4 G:168.5 B:0.0  
Δ=12.7

NCS S 1075-G90Y  
L:78 a:-1 b:87  
Δ=8.63

RAL CLASSIC 1005 Honiggelb  
L:72.2 a:2.8 b:74.3  
Δ=9.9

RAL DESIGN 090 70 80  
L:70.1 a:2.4 b:80.8  
Δ=3.5

RAL EFFECT 270-4  
L:75.5 a:8.9 b:88.7  
Δ=11.2

110



PMS 104 C  
L:63.6 a:-0.3 b:70.7  
Δ=0

CMYK FOGRA 39 | 110  
C:30.7 M:29.7 Y:100.00 K:12.6  
Δ=7.6

sRGB | 110  
R:175.5 G:151.7 B:0.0  
Δ=5.3

NCS S 2070-G90Y  
L:67 a:0 b:72  
Δ=3.71

RAL CLASSIC 1027 Currygelb  
L:64.6 a:-1.9 b:62.8  
Δ=8.1

RAL DESIGN 095 60 70  
L:59.1 a:-4.6 b:72.0  
Δ=6.3

RAL EFFECT 260-5  
L:74.1 a:4.7 b:67.7  
Δ=12.1

112



PMS 7401 C  
L:90.2 a:1.6 b:32.2  
Δ=0

CMYK FOGRA 39 | 112  
C:5.4 M:11.4 Y:43.41 K:0.0  
Δ=0.9

sRGB | 112  
R:245.7 G:223.7 B:164.0  
Δ=0.9

NCS S 0520-Y10R  
L:93 a:2 b:30  
Δ=3.59

RAL CLASSIC 1002 Sandgelb  
L:79.5 a:1.5 b:33.6  
Δ=10.8

RAL DESIGN 090 90 30  
L:90.3 a:-0.4 b:30.9  
Δ=2.4

RAL EFFECT 130-6  
L:91.6 a:-0.2 b:28.3  
Δ=4.5

114



PMS 7403 C  
L:85.9 a:2.8 b:43.0  
Δ=0

CMYK FOGRA 39 | 114  
C:7.5 M:16.3 Y:56.71 K:0.3  
Δ=0.7

sRGB | 114  
R:239.2 G:210.6 B:131.2  
Δ=0.9

NCS S 0530-Y10R  
L:90 a:5 b:41  
Δ=5.09

RAL CLASSIC 1002 Sandgelb  
L:79.5 a:1.5 b:33.6  
Δ=11.4

RAL DESIGN 090 90 40  
L:90.4 a:0.0 b:41.6  
Δ=5.5

RAL EFFECT 280-1  
L:90.3 a:-0.5 b:41.4  
Δ=5.8

116



PMS 7405 C  
L:83.8 a:2.3 b:89.6  
Δ=0

CMYK FOGRA 39 | 116  
C:7.5 M:16.3 Y:100.00 K:0.3  
Δ=1.7

sRGB | 116  
R:242.3 G:204.4 B:0.0  
Δ=7.2

NCS S 0575-G90Y  
L:86 a:-3 b:91  
Δ=5.91

RAL CLASSIC 1023  
Verkehrsgelb  
L:84.7 a:-1.3 b:84.5  
Δ=6.3

RAL DESIGN 090 80 90  
L:80.3 a:2.5 b:94.2  
Δ=5.8

RAL EFFECT 270-5  
L:77.8 a:10.8 b:90.9  
Δ=10.4

118



PMS 7407 C  
L:68.9 a:11.1 b:46.5  
Δ=0

CMYK FOGRA 39 | 118  
C:18.5 M:36.3 Y:74.32 K:6.7  
Δ=0.6

sRGB | 118  
R:204.5 G:159.0 B:81.5  
Δ=0.9

NCS S 2040-Y20R  
L:72 a:15 b:46  
Δ=4.96

RAL CLASSIC 1034 Pastellgelb  
L:78.8 a:13.0 b:48.0  
Δ=10.1

RAL DESIGN 075 70 50  
L:69.5 a:14.0 b:48.7  
Δ=3.6

RAL EFFECT 290-1  
L:68.5 a:15.3 b:47.4  
Δ=4.3

111



PMS 105 C  
L:51.6 a:-0.8 b:45.5  
Δ=0

CMYK FOGRA 39 | 111  
C:41.5 M:38.0 Y:94.04 K:25.4  
Δ=0.9

sRGB | 111  
R:137.7 G:121.6 B:38.5  
Δ=0.9

NCS S 4050-G90Y  
L:52 a:1 b:49  
Δ=3.94

RAL CLASSIC 8001 Ockerbraun  
L:56.3 a:12.4 b:40.9  
Δ=14.7

RAL DESIGN 090 50 40  
L:50.2 a:-0.1 b:42.0  
Δ=3.8

RAL EFFECT 280-M  
L:59.0 a:9.0 b:43.4  
Δ=12.5

113



PMS 7402 C  
L:87.0 a:1.4 b:34.3  
Δ=0

CMYK FOGRA 39 | 113  
C:9.0 M:14.1 Y:47.93 K:0.3  
Δ=1.0

sRGB | 113  
R:237.1 G:214.8 B:151.4  
Δ=0.9

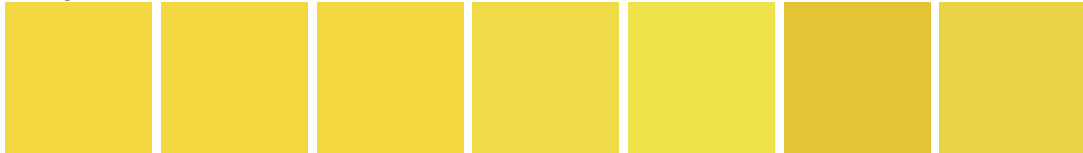
NCS S 1020-Y  
L:87 a:0 b:29  
Δ=5.50

RAL CLASSIC 1002 Sandgelb  
L:79.5 a:1.5 b:33.6  
Δ=7.5

RAL DESIGN 085 90 30  
L:89.6 a:3.5 b:30.7  
Δ=4.9

RAL EFFECT 280-2  
L:85.7 a:1.0 b:36.5  
Δ=2.7

115



PMS 7404 C  
L:87.5 a:-0.9 b:73.8  
Δ=0

CMYK FOGRA 39 | 115  
C:6.3 M:10.7 Y:81.75 K:0.0  
Δ=1.0

sRGB | 115  
R:245.6 G:216.8 B:63.7  
Δ=1.0

NCS S 0560-G90Y  
L:88 a:-4 b:72  
Δ=3.62

RAL CLASSIC 1018 Zinkgelb  
L:89.7 a:-7.3 b:72.2  
Δ=6.4

RAL DESIGN 090 80 70  
L:80.7 a:1.0 b:70.9  
Δ=7.6

RAL EFFECT 260-3  
L:85.7 a:-3.5 b:70.1  
Δ=5.1

117



PMS 7406 C  
L:81.5 a:6.8 b:88.6  
Δ=0

CMYK FOGRA 39 | 117  
C:6.4 M:22.1 Y:100.00 K:0.3  
Δ=2.7

sRGB | 117  
R:242.0 G:194.9 B:0.0  
Δ=7.7

NCS S 1080-Y  
L:79 a:7 b:86  
Δ=3.57

RAL CLASSIC 1003 Signalgelb  
L:82.0 a:7.4 b:82.2  
Δ=6.4

RAL DESIGN 085 80 85  
L:79.1 a:8.7 b:86.0  
Δ=4.0

RAL EFFECT 270-5  
L:77.8 a:10.8 b:90.9  
Δ=5.8

119



PMS 2001 C  
L:91.3 a:-0.3 b:38.5  
Δ=0

CMYK FOGRA 39 | 119  
C:4.6 M:9.0 Y:48.85 K:0.0  
Δ=0.6

sRGB | 119  
R:247.9 G:227.6 B:154.3  
Δ=0.9

NCS S 0530-Y  
L:92 a:1 b:42  
Δ=3.83

RAL CLASSIC 1002 Sandgelb  
L:79.5 a:1.5 b:33.6  
Δ=12.8

RAL DESIGN 090 90 40  
L:90.4 a:-0.0 b:41.6  
Δ=3.3

RAL EFFECT 280-1  
L:90.3 a:-0.5 b:41.4  
Δ=3.0

120



PMS 2002 C  
L:90.3 a:-0.1 b:51.3  
Δ=0

CMYK FOGRA 39 | 120  
C:4.1 M:9.9 Y:60.23 K:0.0  
Δ=1.2

sRGB | 120  
R:249.7 G:224.4 B:125.5  
Δ=0.9

NCS S 0540-Y  
L:92 a:1 b:51  
Δ=2.07

RAL CLASSIC 1017 Safrangelb  
L:81.8 a:10.1 b:53.6  
Δ=13.4

RAL DESIGN 090 90 50  
L:89.4 a:0.1 b:50.9  
Δ=1.0

RAL EFFECT 270-1  
L:89.7 a:1.5 b:48.7  
Δ=3.1

122



PMS 2004 C  
L:89.3 a:2.8 b:51.8  
Δ=0

CMYK FOGRA 39 | 122  
C:2.2 M:13.1 Y:61.09 K:0.0  
Δ=0.9

sRGB | 122  
R:251.8 G:219.8 B:122.0  
Δ=0.9

NCS S 0540-Y  
L:92 a:1 b:51  
Δ=3.34

RAL CLASSIC 1017 Safrangelb  
L:81.8 a:10.1 b:53.6  
Δ=10.6

RAL DESIGN 090 90 50  
L:89.4 a:0.1 b:50.9  
Δ=2.8

RAL EFFECT 270-1  
L:89.7 a:1.5 b:48.7  
Δ=3.4

124



PMS 2006 C  
L:79.3 a:9.7 b:60.4  
Δ=0

CMYK FOGRA 39 | 124  
C:8.0 M:27.3 Y:77.11 K:0.6  
Δ=0.6

sRGB | 124  
R:235.5 G:187.5 B:77.3  
Δ=1.0

NCS S 1050-Y10R  
L:82 a:10 b:59  
Δ=3.11

RAL CLASSIC 1017 Safrangelb  
L:81.8 a:10.1 b:53.6  
Δ=7.3

RAL DESIGN 080 80 60  
L:80.3 a:2.1 b:61.3  
Δ=2.7

RAL EFFECT 290-5  
L:75.1 a:8.9 b:62.5  
Δ=4.8

126



PMS 106 C  
L:90.7 a:-4.1 b:74.7  
Δ=0

CMYK FOGRA 39 | 126  
C:5.5 M:5.0 Y:80.09 K:0.0  
Δ=0.9

sRGB | 126  
R:249.8 G:227.6 B:70.0  
Δ=1.0

NCS S 0560-G90Y  
L:88 a:-4 b:72  
Δ=3.79

RAL CLASSIC 1023  
Verkehrsgelb  
L:89.7 a:-7.3 b:72.2  
Δ=4.1

RAL DESIGN 095 80 70  
L:79.7 a:-5.6 b:70.9  
Δ=11.7

RAL EFFECT 260-3  
L:85.3 a:-3.5 b:70.1  
Δ=7.1

128



PMS 108 C  
L:88.5 a:0.6 b:94.5  
Δ=0

CMYK FOGRA 39 | 128  
C:2.7 M:10.8 Y:99.31 K:0.0  
Δ=1.7

sRGB | 128  
R:254.2 G:218.2 B:0.0  
Δ=8.4

NCS S 0575-G90Y  
L:86 a:-3 b:91  
Δ=5.59

RAL CLASSIC 1023  
Verkehrsgelb  
L:84.7 a:-1.3 b:84.5  
Δ=10.8

RAL DESIGN 090 80 90  
L:80.3 a:2.5 b:94.2  
Δ=8.4

RAL EFFECT 270-5  
L:77.8 a:10.8 b:90.9  
Δ=15.1

121



PMS 2003 C  
L:90.3 a:-1.6 b:61.5  
Δ=0

CMYK FOGRA 39 | 121  
C:4.4 M:8.3 Y:69.31 K:0.0  
Δ=0.8

sRGB | 121  
R:249.9 G:225.1 B:102.9  
Δ=1.0

NCS S 0550-G90Y  
L:89 a:-4 b:61  
Δ=2.78

RAL CLASSIC 1018 Zinkgelb  
L:89.7 a:-7.3 b:72.2  
Δ=12.1

RAL DESIGN 095 90 59  
L:90.6 a:-3.0 b:59.9  
Δ=2.1

RAL EFFECT 260-3  
L:85.3 a:-3.5 b:70.1  
Δ=10.1

123



PMS 2005 C  
L:88.3 a:6.5 b:48.0  
Δ=0

CMYK FOGRA 39 | 123  
C:0.0 M:17.5 Y:58.31 K:0.0  
Δ=0.6

sRGB | 123  
R:254.2 G:214.8 B:127.9  
Δ=0.9

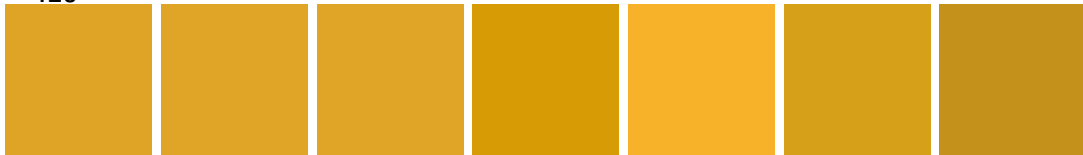
NCS S 0540-Y10R  
L:89 a:7 b:50  
Δ=2.21

RAL CLASSIC 1017 Safrangelb  
L:81.8 a:10.1 b:53.6  
Δ=9.4

RAL DESIGN 090 90 50  
L:89.4 a:0.1 b:50.9  
Δ=7.1

RAL EFFECT 270-1  
L:89.7 a:1.5 b:48.7  
Δ=5.2

125



PMS 2007 C  
L:72.3 a:15.7 b:68.4  
Δ=0

CMYK FOGRA 39 | 125  
C:11.0 M:37.2 Y:91.37 K:1.8  
Δ=1.0

sRGB | 125  
R:225.4 G:164.4 B:36.7  
Δ=1.0

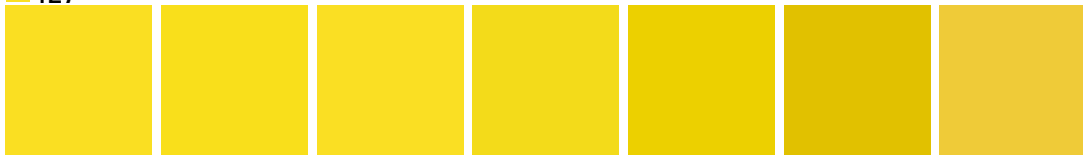
NCS S 2070-Y10R  
L:69 a:16 b:72  
Δ=4.91

RAL CLASSIC 2007  
Leuchthellorange  
L:78.4 a:19.5 b:73.7  
Δ=8.9

RAL DESIGN 080 70 70  
L:70.2 a:13.4 b:69.6  
Δ=3.3

RAL EFFECT 290-4  
L:64.5 a:13.0 b:64.1  
Δ=9.3

127



PMS 107 C  
L:89.8 a:-2.5 b:84.1  
Δ=0

CMYK FOGRA 39 | 127  
C:4.1 M:7.1 Y:89.27 K:0.0  
Δ=0.6

sRGB | 127  
R:251.8 G:224.1 B:32.1  
Δ=1.0

NCS S 0570-G90Y  
L:88 a:-3 b:84  
Δ=1.91

RAL CLASSIC 1023  
Verkehrsgelb  
L:84.7 a:-1.3 b:84.5  
Δ=5.3

RAL DESIGN 090 80 80  
L:79.5 a:1.3 b:83.7  
Δ=11.1

RAL EFFECT 270-2  
L:83.8 a:3.1 b:73.3  
Δ=13.6

129



PMS 109 C  
L:86.3 a:6.0 b:98.6  
Δ=0

CMYK FOGRA 39 | 129  
C:0.0 M:17.1 Y:100.00 K:0.0  
Δ=6.3

sRGB | 129  
R:255.0 G:208.6 B:0.0  
Δ=13.9

NCS S 0580-Y  
L:87 a:7 b:101  
Δ=2.75

RAL CLASSIC 1023  
Verkehrsgelb  
L:84.7 a:-1.3 b:84.5  
Δ=15.9

RAL DESIGN 090 80 90  
L:80.3 a:2.5 b:94.2  
Δ=8.2

RAL EFFECT 270-5  
L:77.8 a:10.8 b:90.9  
Δ=12.4