

## Pantone® Matching System

Since 1963 the PANTONE® Matching System has developed to the standard in terms of colour communication.

The colour guides are available as PANTONE® Formula Guide C for coated and PANTONE® Formula Guide U for uncoated material. Despite identical recipes in both guides, it was not observed whether the colour shades can optically be evaluated as identical.

Concerning the arrangement of colours, pure ink mixings are in the middle of the guide. Further up the shades are brightened with transparent white, further down black ink is added – therefore darkened.

The Pantone® Formula Guide ink mixing system consists of 13 basic inks, black and transparent white.

Ink description and fastnesses of Pantone® Matching System Basic Inks:

		Light Fastness	Spirit	Nitro	Alkali	Opacity	Lye resistant	UV-varnishable	Disp.-varnishable	Film laminating
Pantone® Yellow	<b>62100</b>	5	+	+	+	l	+	+	+	+
Pantone® Yellow 012	<b>62109</b>	5	+	+	+	l	+	+	+	+
Pantone® Orange 021	<b>62110</b>	5	+	+	+	l	+	+	+	+
Pantone® Warm Red	<b>62101</b>	3	+	+	-	l	-	-	-	-
Pantone® Red 032	<b>62111</b>	6-7	+	+	+	l	+	+	+	+
Pantone® Rubine Red	<b>62102</b>	5	+	+	-	l	-	bd	bd	bd
Pantone® Rhodamine Red	<b>62103</b>	4	-	-	-	l	-	-	-	-
Pantone® Purple	<b>62104</b>	4	-	-	-	l	-	-	-	-
Pantone® Violet	<b>62113</b>	4	-	-	-	l	-	-	-	-
Pantone® Blue 072C	<b>62112</b>	5	-	-	-	l	-	-	-	-
Pantone® Reflex Blue	<b>62105</b>	3	-	-	+	l	+	-	-	-
Pantone® Process Blue	<b>62106</b>	8	+	+	+	l	+	+	+	+
Pantone® Green	<b>62107</b>	8	+	+	+	l	+	+	+	+
Pantone® Black	<b>51100</b>	8	+	+	+	d	+	+	+	+
Pantone® Mixing White	<b>80973/1</b>		+	+	+	l	+	+	+	+

Looking at the stated fastness properties it can be seen that not all suggested recipes in the PANTONE® Formula Guides have the necessary fastnesses for e.g. lamination, UV varnishing or label printing.

In order to produce inks of the PANTONE® Matching System also with job-required fastnesses, the usage of basic inks with special fastnesses is necessary:

Yellow	<b>81190/1</b>	6	+	+	+	ld	+	+	+	+
Orange	<b>81191/1</b>	8	+	+	+	l	+	+	+	+
Red	<b>81193/1</b>	6	+	+	+	l	-	+	+	+
Pink	<b>81192/1</b>	6	+	+	+	l	+	+	+	+
Violett	<b>81195/1</b>	7	+	+	+	l	+	+	+	+

Fastness properties according to:

Light fastness:	ISO 2835:1974
Alcohol/Sprit:	ISO 2836
Solvent Mixture/Nitro:	ISO 2836
Alkali/Alkali:	ISO 2836
Lye resistance:	DIN 16524-7

When using these inks it has to be considered that due to the pigments with higher fastness, slight differences in colour shade or metamerism effects cannot always be avoided.

This technical instruction sheet is designed for your information and reference. It is based on and conforms to our current knowledge. However as actual application is affected by many factors over which we have no control, we are not liable for printing failures.