



Organic Colours Series OGG 91 for Direct Screen Printing and Pad Printing

1 General Information

Organic colours of series OGG 91 are primarily developed for direct screen printing on glass, ceramics, and on metals and thermosets. The colours of this series can be applied in fully automatic printing lines. They also can be used for pad printing.

The series OGG 91 consists of 12 basis colours, a four colour process set, a blending material for brightening the colours, and a clear varnish. The clear varnish can be used for overprinting decoration areas. Basic colours can be made more transparent by mixing with clear varnish.

As the undergrounds widely vary with regard to their chemical composition and their method of manufacturing, it is vital to perform suitability tests. Especially antistatic additives and antiblocking agents may negatively influence the adhesion of the colour.

Colours of series OGG 91 are suitable for printing the exterior of food packaging, e.g. non-returnable bottles, and for decoration of flacons for cosmetics.

2 Curing Conditions

Organic colours of series OGG 91 are to be cured at temperatures of c. 180°C (356°F) in a 30 minute cycle. During the curing process of organic colours, it is particularly important to exactly keep to this curing temperature, measured at the object. In case the curing temperatures are too low, the decorated area remains tacky, and in case of temperatures above 200°C, the colours yellow. At higher temperatures, the organic burns up.

According to our experience, organic colours cannot be cured in common muffle kilns that are usually used for firing ceramic colours. The temperature regulation of these kilns is too imprecise, and the ventilation is insufficient. For firing organic colours, e.g. continuous furnaces with good ventilation, convection ovens and infrared lamp ovens are suitable. It is crucial to have an exact controllability of the firing temperature and a regular firing temperature in the oven.

In order to control the temperature of the object, we recommend using temperature recording labels. They are e.g. available as Celsius[®] temperature recording labels from the company Spirig in Ruppeswil, Switzerland, www.celsi.com.

3 Properties of the Colours

3.1 Heavy Metal Content

Organic colours of series OGG 91 contain no heavy metal. They are lead free and cadmium free.

3.2 Miscibility

The colour mixing system consists of 12 basic colours and may be used for the mixing of a wide colour shade range. There are no limitations to mixing. Please refer to point 9 that shows a mixing table, with a multitude of mixing recommendations.



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4 Achievable Properties of Finished Decorations manufactured with Colours from the OGG 91 Series

The colour series OGG 91 physically dries and chemically wets after thermal curing. Colour intensity and brilliance, especially their very good mechanical and chemical resistance, and their good flexibility are the distinguishing features of cured decorations with series OGG 91.

The properties of finished decorations is influenced by many parameters. The high quality of the used colour is an essential prerequisite to get a high-quality decoration. Moreover, the properties of the finished decoration is influenced by the substrate, by possible substrate coatings, by possible contamination, and the curing conditions.

4.1 Water Resistance

We test the water resistance of a decoration after 48 hours in water that has a temperature of 20°C (68°F). This is followed by a tape test and a scratch resistance test. In a second test, the decoration is put in hot water (100°C / 212°F) for 5 or 10 minutes and afterwards, a tape test and a scratch resistance test is performed.

Our test decorations passed both water resistance tests described above.

4.2 Dishwasher Resistance

We test the dishwasher resistance in an accelerated dishwashing test, at a temperature of 60°C (140°F). If a decoration withstands 200 washing cycles and passes the subsequent tape test and scratch resistance test, we designate it as dishwasher resistant.

All decorations with colours of series OGG 91 have been found in our tests to be dishwasher resistant.

4.3 Chemical Resistance

We test the sulphide resistance according to ASTM C777-04, and the acid resistance for re-usable bottles and glass containers according ASTM C735-04.

Our test decorations passed both tests.

4.4 Resistance to Solvent-containing Substances (Perfume)

A test decoration is exposed to a solvent-containing test liquid for 24 hours. Then, the decoration is dried for 3 hours, and afterwards, a tape test and a cross cutting test is performed.

Our test decorations successfully passed this test.

4.5 Adhesion

We test the adhesion of a test decoration in multicross cutters according to DIN EN ISO 2409. Our test decorations passed the cross cutting test.

5 Storage

Organic colours should be stored at room temperature (20°C). Storage in a cool environment positively influences the shelf life of the colours. Higher temperatures reduce their shelf life. Extreme temperatures, e.g. at an exposed place (window) should be avoided. We recommend to process the colours the colours within 12 months.

6 Processing

6.1 Preparation of the Substrate

Take care that the article to be decorated is free of contamination and grease residues. As decorations produced with organic colours are not fired but only cured, all contaminations remain on the article and influence the adhesion of the colour on the substrate.

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In order to avoid this, we recommend a flame treatment of the article prior to decoration. In addition, we recommend to treat the surface with Pyrosil®. This way, the surface is cleaned from organic contamination and activated, which enables an optimized compound of the materials. Depending on the type of device, these steps of the procedure are either performed together or one after another. Pyrosil® is e.g. available from the company Sura Instruments GmbH in Jena, Germany: www.sura-instruments.de, phone: +49-3641-20 49 83.

6.2 Material Preparation for Optimized Processing Properties

Organic colours of series OGG 91 are suitable for direct screen printing and pad printing. Prior to transfer, the colours must be adjusted with 15-25% thinner or retarder, or with a mixture of retarder and thinner, to be ready-to-use.

The optimized adjustment of colours depends on the print speed (manual printing, semiautomatic printing machine = a rather slow print, fully automatic printing lines = fast print), on the room temperature, the humidity, and on the type of decoration. Therefore, they need to be adjusted individually. The following information are a rough guideline for the ready-to-print adjustment:

6.2.1 Adjustment of the Colours for Slow Manual Printing and Semiautomatic Machines

For manual printing, we recommend using the retarder OGG 91032 in a mixing ratio 100 : 15 parts by weight (colour: retarder), in addition with 2% adhesive agent, from the colour quantity.

6.2.2 Adjustment of the Colours for Medium and Fast Print

For printing the colours in a medium or a fast speed, we recommend the adding a mixture of thinner OGG 91021 and retarder OGG 91031 and 2% adhesive agent. In the following overviews, please find a rough recommendation for a suitable thinner / retarder ratio. These information help to „fine-tune“ the colours, to determine the optimized processing conditions.

Approximate values:

Room Temperature	Thinner : Retarder
20°C	50 : 50
30°C	40 : 60
40°C	30 : 70

Printing Speed	Thinner : Retarder
Fast	50 : 50
Medium	40 : 60
Slow	See point 6.2.1

Decoration Type	Thinner : Retarder
Area Decoration	30 : 70
Grid Decoration	50 : 50
Line Decoration	50 : 50

Humidity	Thinner : Retarder
High	50 : 50
Medium	40 : 60
Low	30 : 70

6.2.3 Further Additives available to Optimize the Properties of Decorations

Specific characteristics of organic decorations can be further improved by means of specific additives:

- The addition of approx. 5% thix paste further improves the sharp outline of dots in half tone motifs.
- The addition of adhesive agent (approximately 2%) supports an excellent adhesion onto the substrate.
- The addition of 0.5-1% levelling agent can support the egalisation of printed areas. A too high quantity of levelling agent may negatively influence the overprinting properties of the colour.

The percentage values refer to the OGG colour paste.

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6.3 Direct Screen Printing

For direct screen printing of the colours, 120-31 polyester screens have proved suitable.

For multicolour printing, we recommend an intermediate drying process with infrared lamps or hot air fans. The final drying process takes 30 minutes at 180°C (356°F) in the furnace.

6.4 Pad Printing

The colours of series OGG 91 can be processed in open and in closed pad printing systems.

6.5 Cleaning of Screens and Pads

Screens, squeegees and other work equipment can be cleaned with the screen cleaning media stated in the attachment. In case the cleaning is not performed by fully automatic cleaning equipment, it is essential to wear protective gloves.

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Technical Information Nr. 3.60/5

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6.6 Frequent Faults, their Causes and ways of Avoiding them

Fault	Possible Cause	Avoidance
Colour smears / is blurred, especially on reverse	<ul style="list-style-type: none"> • Too low viscosity of the colour • Too high or too low snap-off contact • Too low tension of the screen • Squeegee is too hard • Angle of the squeegee is too flat 	<ul style="list-style-type: none"> • Add thixotropic paste to increase viscosity • Adjust snap-off contact • Check screen tension • Change squeegee hardness • Change squeegee angle
Colour is blurred during multicolour printing	<ul style="list-style-type: none"> • Layer is too thick • Films are not suitable for screen printing • Mesh is too coarse 	<ul style="list-style-type: none"> • Reduce layer thickness • Perform good colour separation in the electronic preliminary stage • Use screen with finer mesh
Printing Problems	<ul style="list-style-type: none"> • Too high density of the colour • Tonal dot gain • Mesh is too coarse 	<ul style="list-style-type: none"> • Add transparent paste in order to reduce the density • Add thixotropic paste in order to reduce the egalisation of the colour • Use screen with finer mesh
Bad dimension accuracy during multicolour printing	<ul style="list-style-type: none"> • Inappropriate snap-off contact • Screen tension and snap-off contact vary from print to print • Squeegee pressure varies from print to print • Squeegee pressure is too high 	<ul style="list-style-type: none"> • Adjust snap-off contact • Adjust standard values • Adjust squeegee pressure • Change squeegee pressure
Cords in direction of the squeegee	<ul style="list-style-type: none"> • Squeegee is worn out • Inappropriate squeegee hardness • Angle of the squeegee is too steep • Squeegee pressure is too high 	<ul style="list-style-type: none"> • Use a new squeegee • Use an appropriate squeegee • Change squeegee angle • Change squeegee pressure
Irregular print layout / striations parallel to the squeegee direction, especially of transparent colour shades	<ul style="list-style-type: none"> • Improper squeegee print • Squeegee clatters • Vibrations during printing process • Too high print speed 	<ul style="list-style-type: none"> • Adjust squeegee pressure • Adjust squeegee angle • Stabilize printing machine • Reduce print speed
Pinhole effect in the colour layer	<ul style="list-style-type: none"> • Bad wetting caused by a too low surface tension of the substrate • Viscosity not optimized • Insufficient flow characteristics of the colour 	<ul style="list-style-type: none"> • Add wetting agent to the colour • Decrease viscosity • Add levelling agent
Moiré effect	<ul style="list-style-type: none"> • Inappropriate angle of the printing screen • Displacement of the motif 	<ul style="list-style-type: none"> • Re-adjustment of the screen angle.

7 Safety Data

Please refer to the material safety data sheets (MSDS) that are available upon request.

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8 Products

Basic Colours

Number of Colour	Name of Colour	Pantone No.	Water Resistance 20°C	Water Test 100°C	ASTM C777-04	ASTM C735-04	Grid Cutting Test 100°C	Dishwasher Resistant	Solvent Resistant	Notes
OGG 91 001	White		●	●	●	●	●	●	●	-
OGG 91 011	Blending Material		●	●	●	●	●	●	●	-
OGG 91 335	Light yellow	3955 C	●	●	●	●	●	●	●	-
OGG 91 350	Yellowish orange	109 C	●	●	●	●	●	●	●	-
OGG 91 570	Orange	166 C	●	●	●	●	●	●	●	-
OGG 91 323	Gold		●	●	●	●	●	●	●	-
OGG 91 770	Red	1665 C	●	●	●	●	●	●	●	-
OGG 91 778	Dark red	193 C	●	●	●	●	●	●	●	-
OGG 91 220	Brown	483 C	●	●	●	●	●	●	●	-
OGG 91 660	Pink	239 C	●	●	●	●	●	●	●	-
OGG 91 960	Violet	275 C	●	●	●	●	●	●	●	-
OGG 91 116	Blue	293 C	●	●	●	●	●	●	●	-
OGG 91 410	Green	334 C	●	●	●	●	●	●	●	-
OGG 91 801	Silver	877 C	●	●	●	●	●	●	●	-
OGG 91 888	Black	Process Black C	●	●	●	●	●	●	●	-

4-Colour-Process

OGG 91 104	Cyan	Process Blue Cyan	●	●	●	●	●	●	●	-
OGG 91 304	Yellow	Process Yellow C	●	●	●	●	●	●	●	-
OGG 91 604	Magenta	Process Magenta C	●	●	●	●	●	●	●	-
OGG 91 888	Black	Process Black C	●	●	●	●	●	●	●	-

Thinner

OGG 91 020	Thinner, fast									-
OGG 91 021	Thinner, standard									-

Retarder

OGG 91 030	Retarder, standard									-
OGG 91 031	Retarder, slow									-
OGG 91 032	Retarder, very slow									-
OGG 91 040	Adhesive Agent									-
OGG 91 050	Levelling Agent									-

Auxiliary Materials

OGG 91 000	Clear Varnish		●	●	●	●	●	●	●	-
OGG 91 012	Thix Paste									-
OGG 91 016	Matting Agent									-

Cleaning Media

OGG 91 060	Universal Cleaner									-
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9 Mixing Recommendations

PANTONE® COLOR	OGG 91335 yellow	OGG 91350 yellowish orange	OGG 91570 orange	OGG 91770 red	OGG 91778 dark red	OGG 91660 pink	OGG 91960 violet	OGG 91116 blue	OGG 91410 green	OGG 91001 white	OGG 91888 black	OGG 91011 blending material
PANTONE ORANGE 021 C	53,00		47,00									
PANTONE RED 032 C				18,30	18,30					27,50		35,90
PANTONE BLUE 072 C							36,20	29,00		5,80		29,00
PANTONE 101 C	37,80		0,20							62,00		
PANTONE 102 C	95,00		0,41							4,59		
PANTONE 103 C	96,90		1,40								1,70	
PANTONE 104 C	95,40		1,40								3,20	
PANTONE 105 C	85,30		1,80							6,40	6,50	
PANTONE 106 C	29,38		0,32							70,30		
PANTONE 107 C	60,57		0,43							39,00		
PANTONE 108 C	79,50		0,66							19,84		
PANTONE 109 C	95,00		1,10							3,90		
PANTONE 113 C	28,50		0,30							71,16	0,04	
PANTONE 114 C	41,40		0,60							58,00		
PANTONE 115 C	47,43		0,57							52,00		
PANTONE 116 C	82,70		1,10							6,90	0,10	9,20
PANTONE 119 C	88,50		1,90							6,00	3,60	
PANTONE 1205 C	7,30			0,46						84,50		7,74
PANTONE 120 C	9,36		0,44							63,50		26,70
PANTONE 121 C	15,48		0,62							65,50		18,40
PANTONE 1225 C	31,50		1,60							51,00		15,90
PANTONE 122 C	24,70		0,80							56,00		18,50
PANTONE 124 C	89,70		2,76							7,00	0,54	
PANTONE 1265 C		82,70		2,60						9,00	5,70	
PANTONE 126 C	85,52		2,73							8,55	3,21	
PANTONE 127 C	14,40			0,57						65,50	0,03	19,50
PANTONE 128 C	20,70			0,80						53,50	0,11	24,89
PANTONE 129 C	40,50			1,15						49,80	0,09	8,46
PANTONE 1345 C	7,00		0,80		0,10					79,50		12,60
PANTONE 134 C	15,20		0,60			0,30				83,90		
PANTONE 1355 C	8,80		1,00		0,20					65,50		24,50
PANTONE 1365 C	15,76		1,70		0,24					61,80		20,50
PANTONE 137 C	79,00			5,50						15,50		
PANTONE 138 C	83,40		6,80							9,20	0,60	
PANTONE 142 C	50,90			2,10						46,70	0,30	
PANTONE 143 C	60,50			3,60						35,50	0,40	
PANTONE 144 C	82,60		11,20							5,50	0,70	
PANTONE 145 C	85,80		8,30							4,20	1,70	
PANTONE 1485 C	2,50		3,00							53,50		41,00
PANTONE 148 C	2,58		0,87							82,80	0,05	13,70
PANTONE 1495 C	20,00		8,00							56,00		16,00
PANTONE 149 C	4,51		0,99							94,50		
PANTONE 1505 C	72,00		19,50							8,50		
PANTONE 150 C	27,30			4,60						49,50		18,60
PANTONE 151 C	73,30		18,80							7,80	0,10	
PANTONE 1525 C	50,00		43,50							4,40	2,10	
PANTONE 152 C	68,70		16,25							14,00	1,05	
PANTONE 1535 C	44,10		46,20							4,20	5,50	
PANTONE 153 C	71,00		15,70							10,90	2,40	

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PANTONE® COLOR	OGG 91335 yellow	OGG 91350 yellowish orange	OGG 91570 orange	OGG 91770 red	OGG 91778 dark red	OGG 91660 pink	OGG 91960 violet	OGG 91116 blue	OGG 91410 green	OGG 91001 white	OGG 91888 black	OGG 91011 blending material
PANTONE 1555 C			1,84		0,06					90,00		8,10
PANTONE 155 C	4,36		0,29		0,17					95,06	0,12	
PANTONE 1565 C			5,14		0,16					83,00		11,70
PANTONE 156 C	9,60					1,50				66,00		22,90
PANTONE 1575 C			10,42							59,70	0,08	29,80
PANTONE 157 C	20,80		4,33		0,47					62,70		11,70
PANTONE 1585 C		23,20	50,50	1,00						25,30		
PANTONE 158 C	54,10		15,00		1,30					29,00	0,60	
PANTONE 1595 C	42,40		35,85							20,40	1,35	
PANTONE 159 C	52,30		31,40							14,40	1,90	
PANTONE 160 C	50,30		32,70							12,60	4,40	
PANTONE 161 C	35,01	18,09		33,26							13,65	
PANTONE 162 C	1,70			1,70						88,90		7,70
PANTONE 1635 C			2,50	7,40						70,70		19,40
PANTONE 163 C			3,40	2,70						56,40		37,50
PANTONE 1645 C			4,90	14,60						51,20		29,30
PANTONE 164 C			11,30	4,00						62,00		22,70
PANTONE 1655 C			28,00		1,70					47,30		23,00
PANTONE 165 C	17,20		35,40		0,59					46,81		
PANTONE 1665 C	26,20		19,70	43,90						9,20	1,00	
PANTONE 166 C	10,00		59,00							30,24	0,76	
PANTONE 1675 C			37,10	46,60						12,90	3,40	
PANTONE 167 C		49,20		36,30						12,00	2,50	
PANTONE 169 C				2,08	0,42					32,50		65,00
PANTONE 170 C				8,20	1,00					40,80		50,00
PANTONE 171 C				27,80	0,42					38,00		33,78
PANTONE 173 C	3,50			70,50						24,70	1,30	
PANTONE 1765 C				0,43	2,87					24,20		72,50
PANTONE 1775 C				0,56	5,30					42,00		52,14
PANTONE 1777 C				5,08	10,17					42,37		42,37
PANTONE 177 C				2,40	3,70					17,60		76,30
PANTONE 1785 C				2,10	11,50					14,40		72,00
PANTONE 1788 C				15,50	11,20					21,50		51,80
PANTONE 178 C				5,70	5,80					15,00		73,50
PANTONE 1795 C				37,50	31,28					31,10	0,12	
PANTONE 179 C				50,60	7,84					41,30	0,26	
PANTONE 1805 C				35,00	34,65					29,00	1,35	
PANTONE 180 C				49,90	17,90					31,00	1,20	
PANTONE 182 C				0,50	1,00					78,80		19,70
PANTONE 183 C					3,60					35,40		61,00
PANTONE 185 C				1,70	28,00					17,50		52,80
PANTONE 186 C				32,80		53,30				13,90		
PANTONE 187 C	6,15				61,40					31,50	0,95	
PANTONE 1895 C					0,96	0,20				89,00		9,84
PANTONE 190 C				1,40	6,40					60,00		32,20
PANTONE 1915 C					5,70	6,80				15,60		71,90
PANTONE 1925 C				8,30		22,70						69,00
PANTONE 1945 C					26,40	50,20				22,30	1,10	
PANTONE 194 C					57,60	15,30				25,00	2,10	
PANTONE 1955 C				14,30		44,70				13,00	2,00	26,00
PANTONE 195 C					51,50					29,50	5,30	13,70
PANTONE 196 C	1,00					1,50				78,90		18,60
PANTONE 197 C	0,83				3,40					84,30	0,17	11,30
PANTONE 198 C			2,70		24,20					73,10		

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PANTONE 199 C				7,70	38,60					33,00		20,70
PANTONE 200 C				5,20	67,90					26,10	0,80	
PANTONE 201 C				2,80	68,80					26,60	1,80	
PANTONE 202 C		7,70			65,90		0,80			22,30	3,30	
PANTONE 204 C	1,25				2,00	7,50				74,45		14,80
PANTONE 205 C					10,40	7,24				60,00	0,06	22,30
PANTONE 206 C					19,70	39,00				13,80		27,50
PANTONE 207 C					24,80	54,10	0,75			20,35		
PANTONE 208 C					41,20	25,00	2,50			30,30	1,00	
PANTONE 209 C				14,00	33,00					47,00	6,00	
PANTONE 210 C					1,20	1,80				30,00		67,00
PANTONE 213 C					9,10	18,20						72,70
PANTONE 216 C				15,40		61,70				18,70	4,20	
PANTONE 219 C					2,70	25,20				25,20		46,90
PANTONE 230 C					0,79	0,83				86,50	0,12	11,76
PANTONE 233 C						50,43	0,17			15,70		33,70
PANTONE 2385 C						33,70	0,62			23,50		42,18
PANTONE 238 C						19,00	0,06			34,94		46,00
PANTONE 239 C						29,09	0,11			24,30		46,50
PANTONE 240 C						36,00	0,56			18,44		45,00
PANTONE 241 C						58,20	1,40			18,20		22,20
PANTONE 243 C			0,03			2,50	0,05			68,42		29,00
PANTONE 244 C						4,40	0,10			64,00		31,50
PANTONE 245 C						9,08	0,22			58,70		32,00
PANTONE 248 C						57,50	2,30			25,00		15,20
PANTONE 251 C					0,25	3,15	0,40			70,00		26,20
PANTONE 252 C						9,60	0,96			28,44		61,00
PANTONE 253 C						21,90	2,30			17,30		58,50
PANTONE 254 C						51,00	3,60			32,00	0,40	13,00
PANTONE 255 C						60,70	2,00			33,30	4,00	
PANTONE 2562 C						1,98	0,52			74,80		22,70
PANTONE 2567 C					0,50	0,30	1,00			98,20		
PANTONE 2572 C						5,06	1,19			65,00		28,75
PANTONE 2577 C						4,60	2,30			61,10		32,00
PANTONE 257 C					0,74		0,67			77,59		21,00
PANTONE 2582 C						7,10	2,00			14,40		76,50
PANTONE 2583 C						19,40	3,10			58,20		19,30
PANTONE 2587 C						12,50	5,10			47,10		35,30
PANTONE 258 C						29,20	2,28			61,20	1,52	5,80
PANTONE 2592 C						16,00	3,70			10,60		69,70
PANTONE 2593 C						22,60	4,40			21,20		51,80
PANTONE 2597 C					3,60		12,60					83,80
PANTONE 2607 C						29,60	20,70			16,30		33,40
PANTONE 260 C						66,80	4,40			24,40	4,40	
PANTONE 2612 C						54,50	6,50			29,40	0,80	8,80
PANTONE 261 C					16,20	46,90		6,80		17,10		13,00
PANTONE 2627 C				4,60			12,10			3,40	1,20	78,70
PANTONE 262 C					24,50	44,50		7,20		22,20	1,60	
PANTONE 2635 C						2,17	0,13	0,33		86,50		10,87
PANTONE 263 C			0,02				0,28			89,00	0,03	10,67
PANTONE 2645 C						0,33	1,42			80,00		18,25
PANTONE 264 C						0,17	0,77			85,00	0,03	14,03
PANTONE 2655 C						1,33	3,67			40,00		55,00
PANTONE 265 C						1,64	3,46			45,90		49,00

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PANTONE® COLOR	OGG 91335 yellow	OGG 91350 yellowish orange	OGG 91570 orange	OGG 91770 red	OGG 91778 dark red	OGG 91660 pink	OGG 91960 violet	OGG 91116 blue	OGG 91410 green	OGG 91001 white	OGG 91888 black	OGG 91011 blending material
PANTONE 2665 C						1,50	5,40			28,60		64,50
PANTONE 266 C						6,90	11,30			32,50		49,30
PANTONE 267 C						14,10	17,30			28,30		40,30
PANTONE 268 C						31,00	17,00			31,70	2,30	18,00
PANTONE 268 C						31,90	14,90			32,30	1,50	19,40
PANTONE 269 C					5,90	32,50	17,20			40,50	3,90	
PANTONE 2705 C						4,47		0,90		94,58	0,05	
PANTONE 2706 C			0,09				0,15	0,18		99,58		
PANTONE 270 C	0,70						1,00	0,30		74,40		23,60
PANTONE 2715 C						6,50		1,80		30,50		61,20
PANTONE 2716 C					0,20		0,95	0,80		83,00		15,05
PANTONE 2717 C					0,09		0,21	0,43		99,27		
PANTONE 2718 C							2,85	3,35		70,30		23,50
PANTONE 271 C						0,40	1,67	0,53		97,10	0,30	
PANTONE 2726 C							4,80	2,90		22,30		70,00
PANTONE 2727 C							3,10	6,80		34,40		55,70
PANTONE 2728 C							5,30	10,20		22,70		61,80
PANTONE 272 C						0,80	4,40	1,00		93,00	0,80	
PANTONE 2735 C	3,90					4,20	18,30	6,10				67,50
PANTONE 273 C						23,30	13,20	7,60		26,80		29,10
PANTONE 2748 C							30,50	45,60		22,80	1,10	
PANTONE 2757 C							10,90	76,40		9,40	3,30	
PANTONE 2765 C						73,50		20,20		2,50	3,80	
PANTONE 2766 C	4,50						42,10	21,50		18,50		13,40
PANTONE 2768 C	6,10						51,60	33,00		9,30		
PANTONE 276 C						31,90	34,30			16,90	16,90	
PANTONE 278 C						1,30		1,43		76,30	0,17	20,80
PANTONE 279 C					0,36		1,07	3,77		43,80		51,00
PANTONE 280 C							6,50	65,00		16,30	2,50	9,70
PANTONE 281 C							7,40	69,40		18,50	4,70	
PANTONE 282 C							16,20	60,90		13,90	9,00	
PANTONE 283 C							0,30	0,94		84,70	0,06	14,00
PANTONE 285 C							1,60	9,30		56,40		32,70
PANTONE 286 C							4,50	41,30		12,80		41,40
PANTONE 287 C							3,80	62,00		15,70		18,50
PANTONE 288 C							5,00	79,30		14,40	1,30	
PANTONE 290 C					0,08			0,48		99,36	0,08	
PANTONE 291 C						0,31		0,66		98,89	0,14	
PANTONE 292 C	0,19					1,50		2,40		86,30		9,61
PANTONE 2935 C							1,60	27,50		20,90		50,00
PANTONE 293 C							4,10	48,00		47,90		
PANTONE 2945 C							0,70	49,20		3,90	0,30	45,90
PANTONE 294 C							3,60	74,50		20,90	1,00	
PANTONE 2955 C							0,90	67,20		25,20	6,70	
PANTONE 295 C							1,14	75,86		13,70	4,30	5,00
PANTONE 2975 C	0,21					0,22		0,60		85,00		13,97
PANTONE 297 C						0,38		1,23	0,23	90,60		7,56
PANTONE 2985 C	0,19					0,24		2,47		87,10		10,00
PANTONE 298 C						0,36		3,29	0,15	96,20		
PANTONE 2995 C	0,50							10,00		69,00		20,50
PANTONE 300 C							0,20	35,80		24,30		39,70
PANTONE 3015 C								45,80	2,70	36,50	1,20	13,80
PANTONE 301 C								60,00	1,28	19,00	0,82	18,90
PANTONE 304 C	0,27		0,05					0,88		88,00		10,80

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PANTONE 305 C			0,05					1,70	0,31	59,24		38,70
PANTONE 307 C								32,90	6,10	28,20		32,80
PANTONE 308 C								50,30	10,40	26,00	1,40	11,90
PANTONE 3105 C								1,10	1,10	85,50		12,30
PANTONE 310 C			0,08					1,13	0,49	68,80		29,50
PANTONE 3115 C								2,30	1,70	66,50		29,50
PANTONE 311 C								2,87	1,53	82,60		13,00
PANTONE 3125 C								5,60	3,40	28,00		63,00
PANTONE 312 C								6,50	2,40	26,00		65,10
PANTONE 3135 C								12,70	7,50	18,80		61,00
PANTONE 313 C								9,80	4,40	20,80		65,00
PANTONE 3145 C								23,40	13,00	31,50		32,10
PANTONE 314 C								18,40	6,10	20,50		55,00
PANTONE 3155 C								38,00	22,30	37,60	2,10	
PANTONE 315 C								31,60	15,00	36,50	0,90	16,00
PANTONE 3165 C								37,20	31,90	17,00	4,60	9,30
PANTONE 316 C			0,60					22,60	37,20	28,90	10,70	
PANTONE 318 C								0,38	0,73	98,82	0,07	
PANTONE 319 C								1,80	3,00	70,00		25,20
PANTONE 320 C								9,70	11,00	17,30		62,00
PANTONE 321 C								18,40	22,00	24,50		35,10
PANTONE 322 C			0,76					23,64	24,50	41,50		9,60
PANTONE 323 C	19,20		1,90					34,20		42,30	2,40	
PANTONE 3255 C			0,07					0,59	4,64	69,00		25,70
PANTONE 3258 C			0,20					0,62	4,90	87,78		6,50
PANTONE 325 C								0,96	2,76	85,50	0,18	10,60
PANTONE 3265 C								1,25	8,50	38,65		51,60
PANTONE 3268 C			0,43					1,67	15,20	56,20		26,50
PANTONE 326 C			0,16					4,80	11,90	55,50		27,64
PANTONE 3275 C								2,50	14,80	33,50		49,20
PANTONE 3278 C			0,53					2,37	22,00	35,30		39,80
PANTONE 327 C								15,40	39,30	39,30		6,00
PANTONE 3282 C								7,00	27,00	32,30	1,40	32,30
PANTONE 3285 C	23,80		0,06					17,04		59,10		
PANTONE 3288 C			1,15					4,20	56,80	37,85		
PANTONE 328 C								12,00	43,00	32,50	1,60	10,90
PANTONE 3295 C	28,89		0,21					23,50		46,50	0,90	
PANTONE 329 C		4,60						23,20	43,70	28,50		
PANTONE 3305 C			8,00					5,20	48,70	34,80	3,30	
PANTONE 3308 C	12,40		1,90						57,10	13,70	14,90	
PANTONE 331 C	0,21		0,07						0,79	98,93		
PANTONE 332 C	0,29		0,04						1,27	83,90		14,50
PANTONE 3334 C	2,34		0,36						38,40	43,50		15,40
PANTONE 333 C	0,20		0,08						3,72	57,00		39,00
PANTONE 334 C	2,75		0,35						46,20	43,20		7,50
PANTONE 335 C	7,70		1,45						57,50	31,90	1,45	
PANTONE 336 C	8,65		1,55						44,60	38,70	6,50	
PANTONE 3375 C	0,72		0,11						1,97	61,50		35,70
PANTONE 337 C	1,80		0,08					0,92		80,50		16,70
PANTONE 3385 C	1,40		0,10						3,80	57,00		37,70
PANTONE 338 C	2,83		0,11					1,76		82,30		13,00
PANTONE 3395 C	6,18		0,10						11,33	56,64		25,75
PANTONE 339 C	17,30		0,17					7,83		54,30		20,40
PANTONE 340 C	6,05		0,85						40,50	36,50		16,10

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PANTONE 341 C	9,40								49,00	22,50	2,80	16,30
PANTONE 342 C	50,40		1,00					25,20		20,00	3,40	
PANTONE 343 C	41,60		7,40					24,00		25,30	1,70	
PANTONE 344 C	1,17		0,23						1,30	81,70		15,60
PANTONE 345 C	4,80		0,14					1,26		73,00		20,80
PANTONE 346 C	5,70		0,20						3,70	90,20	0,20	
PANTONE 347 C	35,90		0,90						30,80	32,40		
PANTONE 349 C	66,09		3,44					14,23		15,14	1,10	
PANTONE 351 C	1,70		0,13						1,30	79,87		17,00
PANTONE 352 C	3,00		0,15						1,95	71,20		23,70
PANTONE 353 C	4,40		0,18						3,00	66,00		26,42
PANTONE 354 C	19,90	2,30						0,20	22,00			55,60
PANTONE 356 C	51,50		3,20						31,00	14,30		
PANTONE 357 C	12,30		7,40					12,30				68,00
PANTONE 358 C	6,50		0,38						1,50	68,62		23,00
PANTONE 359 C	8,36		0,39						1,65	62,80		26,80
PANTONE 361 C	82,70		0,60					5,00		11,70		
PANTONE 362 C	83,60		1,20					5,10		10,10		
PANTONE 363 C	79,60		2,60					6,07		11,50	0,23	
PANTONE 364 C	84,00		4,77					8,70		2,10	0,43	
PANTONE 365 C	6,70		0,15					0,35		72,50		20,30
PANTONE 366 C	11,00		0,17					0,43		75,40		13,00
PANTONE 367 C	21,15		0,15					0,60		55,50		22,60
PANTONE 368 C	79,70		1,03						6,67	12,60		
PANTONE 369 C	95,54		1,08					3,38				
PANTONE 370 C	87,00		2,90					3,90	1,40	4,80		
PANTONE 371 C	73,00		6,80					6,00		13,00	1,20	
PANTONE 372 C	6,10		0,13						0,25	78,50		15,02
PANTONE 373 C	13,42		0,16						0,52	74,00		11,90
PANTONE 374 C	31,60	0,75						0,52		51,30		15,83
PANTONE 375 C	90,50		0,50						3,00	6,00		
PANTONE 376 C	85,26		1,54						4,70	8,50		
PANTONE 377 C	85,00		4,00						7,90	3,10		
PANTONE 379 C	23,11		0,14						0,19	76,56		
PANTONE 380 C	56,47		0,33						0,50	42,70		
PANTONE 381 C	75,58		0,35					0,47		11,00		12,60
PANTONE 382 C	93,53		0,55						1,24	4,59	0,09	
PANTONE 385 C	91,72		0,40							2,98	4,90	
PANTONE 3965 C	99,52		0,30						0,12		0,06	
PANTONE 401 C	1,00		0,30							66,00	1,40	31,30
PANTONE 404 C	11,43			4,37						77,44	6,76	
PANTONE 405 C	10,50		5,50							63,50	13,10	7,40
PANTONE 420 C	0,40		0,06							99,00	0,54	
PANTONE 421 C	0,45		0,04							73,88	1,03	24,60
PANTONE 423 C	1,15		0,45							95,00	3,40	
PANTONE 424 C	2,70		0,80							91,00	5,50	
PANTONE 426 C	15,40				12,80					15,40	56,40	
PANTONE 428 C	0,10							0,04		75,00	0,63	24,23
PANTONE 429 C	0,20							0,15		63,00	1,42	35,23
PANTONE 430 C	2,70				1,60			1,00		91,40	3,30	
PANTONE 432 C	2,10				1,60			2,10		56,00	19,50	18,70
PANTONE 433 C	2,50							9,10		27,60	60,80	
PANTONE 434 C				0,76		0,20			0,32	98,60	0,12	
PANTONE 437 C				13,90		7,70			5,00	72,50	0,90	

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PANTONE 438 C				35,00		18,00			16,50	27,70	2,80	
PANTONE 439 C				33,80		17,56			13,17	27,70	7,77	
PANTONE 440 C			25,20		4,40		6,80			30,90	32,70	
PANTONE 442 C				0,36					0,40	98,63	0,61	
PANTONE 443 C	0,84		0,48					0,55		96,43	1,70	
PANTONE 445 C	10,00				4,60			1,60		71,50	12,30	
PANTONE 446 C	10,38		3,29					1,37		54,75	30,21	
PANTONE 447 C	22,20			11,70				3,80		30,10	32,20	
PANTONE 4485 C	80,60		6,90								12,50	
PANTONE 4495 C	62,80		3,90							29,00	4,30	
PANTONE 449 C	70,60		5,40							7,00	17,00	
PANTONE 4505 C	40,00		2,80							54,00	3,20	
PANTONE 450 C	74,30		4,30							6,40	15,00	
PANTONE 4515 C	20,00		1,30							77,10	1,60	
PANTONE 451 C	16,80				2,70			1,10		79,40		
PANTONE 4525 C	9,00		0,60							89,60	0,80	
PANTONE 452 C	7,00				1,20			0,50		81,70		9,60
PANTONE 4535 C	3,50		0,30							95,80	0,40	
PANTONE 453 C	3,40				0,70			0,30		95,60		
PANTONE 454 C	2,10				0,40			0,20		97,30		
PANTONE 455 C	74,10		4,40							3,20	10,30	8,00
PANTONE 456 C	93,80		2,10								4,10	
PANTONE 457 C	96,20		1,70								2,10	
PANTONE 458 C	22,00		0,50							63,50	0,50	13,50
PANTONE 459 C	13,00		0,35							75,60	0,28	10,77
PANTONE 460 C	8,30		0,30							84,20	0,20	7,00
PANTONE 4625 C				59,70		7,50					25,30	7,50
PANTONE 463 C	62,30		16,40							10,50	10,80	
PANTONE 464 C	65,50		12,60							15,10	6,80	
PANTONE 4655 C	9,20			4,40						85,00	1,40	
PANTONE 4665 C	4,20			1,90						93,00	0,90	
PANTONE 466 C	7,00		0,80							91,30	0,90	
PANTONE 467 C	3,20		0,50							95,75	0,55	
PANTONE 4685 C	1,10			0,60						98,10	0,20	
PANTONE 469 C	16,50			63,10							20,40	
PANTONE 4705 C	42,11				15,25					38,07	4,57	
PANTONE 470 C	61,20			26,60						7,40	4,80	
PANTONE 4715 C	24,70				8,00					63,95	3,35	
PANTONE 471 C	63,00			25,00						9,50	2,50	
PANTONE 4725 C	9,83				2,95					85,57	1,65	
PANTONE 472 C	2,28		2,50							85,90	0,32	9,00
PANTONE 4735 C	4,20				1,20					93,80	0,80	
PANTONE 473 C	4,10			1,90						93,83	0,17	
PANTONE 4745 C	2,40				0,70					88,50	0,40	8,00
PANTONE 4755 C	1,10				0,40					98,20	0,30	
PANTONE 475 C	2,40			1,10						96,38	0,12	
PANTONE 476 C	15,10			50,30						9,60	25,00	
PANTONE 477 C				63,50	11,00					8,40	17,10	
PANTONE 478 C	7,10			64,20						16,60	12,10	
PANTONE 479 C	27,00		0,20		2,70		1,70			68,40		
PANTONE 480 C	9,33				0,85		0,80			89,02		
PANTONE 481 C	4,06				0,33		0,40			95,21		
PANTONE 482 C	2,54				0,28		0,23			96,95		
PANTONE 483 C	52,00				31,00		0,50			6,50	10,00	

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PANTONE® COLOR	OGG 91335 yellow	OGG 91350 yellowish orange	OGG 91570 orange	OGG 91770 red	OGG 91778 dark red	OGG 91660 pink	OGG 91960 violet	OGG 91116 blue	OGG 91410 green	OGG 91001 white	OGG 91888 black	OGG 91011 blending material
PANTONE 485 C				66,80	16,50					16,50	0,20	
PANTONE 486 C	10,00				3,75		0,10			86,15		
PANTONE 487 C	4,40				1,95					93,50	0,15	
PANTONE 489 C	1,30				0,70					97,90	0,10	
PANTONE 490 C			15,30		40,30					31,70	12,70	
PANTONE 491 C				26,70	32,10	10,70	1,60			24,10	4,80	
PANTONE 492 C				27,60	24,90	10,40	1,25			33,15	2,70	
PANTONE 494 C				1,15	1,25		0,25			97,35		
PANTONE 495 C				0,95	0,75		0,15			98,15		
PANTONE 496 C				0,80	0,35		0,15			98,70		
PANTONE 4975 C				10,40	59,00					11,60	19,00	
PANTONE 497 C				47,40	7,00		7,60			21,30	16,70	
PANTONE 4985 C				30,80	8,80			3,50		56,90		
PANTONE 498 C				36,90	23,80		0,25			20,95	10,95	7,15
PANTONE 4995 C				14,39	5,04			1,44		79,13		
PANTONE 5005 C				8,32	1,61			1,00		89,07		
PANTONE 500 C				5,60			0,70			93,36	0,34	
PANTONE 5015 C				2,20	0,30			0,40		97,10		
PANTONE 501 C				1,60			0,26			98,14		
PANTONE 5025 C				1,47	0,09			0,16		98,12	0,16	
PANTONE 502 C				1,00			0,10			98,90		
PANTONE 5035 C				0,73				0,05		99,06	0,16	
PANTONE 503 C				0,74			0,07			99,19		
PANTONE 504 C					60,30	7,10	2,40			19,30	10,90	
PANTONE 505 C					47,40	24,50	4,40			21,80	1,90	
PANTONE 506 C					39,50	23,50	3,80			32,40	0,80	
PANTONE 507 C					4,20		0,29			95,40	0,11	
PANTONE 508 C					1,64		0,09			87,14	0,13	11,00
PANTONE 509 C					0,93		0,02			98,97	0,08	
PANTONE 510 C					0,80					99,10	0,10	
PANTONE 511 C					4,90	66,60				21,70	6,80	
PANTONE 5125 C	6,20					32,60				56,50	4,70	
PANTONE 512 C						53,70	1,40			25,00	1,15	18,75
PANTONE 5135 C	5,30					19,20				72,00	3,50	
PANTONE 513 C						28,12	1,92			14,40		55,56
PANTONE 5145 C		1,90				7,50				88,40	2,20	
PANTONE 514 C					0,09	8,38	0,19			71,32		20,02
PANTONE 5155 C		2,00					0,87			97,08	0,05	
PANTONE 515 C					0,50	2,50	0,10			96,90		
PANTONE 5165 C		0,69					0,30			98,92	0,09	
PANTONE 516 C					0,48	0,96	0,09			98,47		
PANTONE 5175 C		0,53					0,15			99,29	0,03	
PANTONE 517 C			0,08			1,07	0,04			98,81		
PANTONE 5185 C					37,70		3,50			42,20	16,60	
PANTONE 518 C	9,50					54,60				24,90	11,00	
PANTONE 5195 C					36,54		1,92			48,08	13,46	
PANTONE 519 C						61,05	3,10			30,05	5,80	
PANTONE 5205 C					10,10		0,20			85,00	4,70	
PANTONE 520 C						61,30	2,20		3,50	33,00		
PANTONE 5215 C					2,00					96,50	1,50	
PANTONE 521 C			0,59		0,34		1,52			97,55		
PANTONE 5225 C					0,90					98,30	0,80	
PANTONE 522 C	1,00					1,60	0,76			96,64		
PANTONE 5235 C					0,33					99,34	0,33	

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PANTONE® COLOR	OGG 91335 yellow	OGG 91350 yellowish orange	OGG 91570 orange	OGG 91770 red	OGG 91778 dark red	OGG 91660 pink	OGG 91960 violet	OGG 91116 blue	OGG 91410 green	OGG 91001 white	OGG 91888 black	OGG 91011 blending material
PANTONE 523 C	0,75					0,68	0,45			98,12		
PANTONE 5245 C	0,20				0,23					99,35	0,22	
PANTONE 524 C	0,66					0,33	0,25			98,76		
PANTONE 5255 C						21,70	17,40			43,50	17,40	
PANTONE 525 C						57,20	3,20			32,20	7,40	
PANTONE 526 C						43,00	7,84			31,50	0,36	17,30
PANTONE 5275 C					4,00		9,20			80,10	6,70	
PANTONE 527 C						22,30	7,30			26,40		44,00
PANTONE 528 C						4,26	1,45			45,33		48,96
PANTONE 529 C						1,65	0,56			74,50	0,09	23,20
PANTONE 5305 C						0,03	0,20			99,35	0,42	
PANTONE 530 C						1,01	0,34			76,50	0,15	22,00
PANTONE 531 C					0,27		0,35			99,38		
PANTONE 532 C						15,90		4,00	0,80	43,60	35,70	
PANTONE 533 C						31,00			17,50	41,50	10,00	
PANTONE 534 C					15,50			21,30	5,80	57,40		
PANTONE 535 C							0,87		0,90	82,50	0,75	14,98
PANTONE 536 C						0,18	0,40		0,52	98,40	0,50	
PANTONE 537 C							0,28		0,39	85,70	0,35	13,28
PANTONE 538 C							0,80		0,12	98,88	0,20	
PANTONE 5395 C							3,10	43,40		22,90	30,60	
PANTONE 539 C							9,18	57,78		20,40	12,64	
PANTONE 5405 C							1,67	9,16		80,00	9,17	
PANTONE 540 C							3,80	64,10		23,80	8,30	
PANTONE 5415 C							0,94	4,46		89,91	4,69	
PANTONE 541 C							3,28	68,64		25,96	2,12	
PANTONE 5425 C						1,27		1,58		94,87	2,28	
PANTONE 542 C							0,73	3,63		95,03	0,61	
PANTONE 5435 C						0,46		0,46		98,23	0,85	
PANTONE 543 C							0,27	0,90		98,52	0,31	
PANTONE 5445 C					0,51			2,02		91,06	6,41	
PANTONE 544 C							0,13	0,40		99,27	0,20	
PANTONE 5455 C					0,02			0,11		99,49	0,38	
PANTONE 545 C							0,64	0,31		97,48	1,57	
PANTONE 5463 C	11,05							57,70		9,62	21,63	
PANTONE 5467 C	39,31							14,40		19,84	26,45	
PANTONE 546 C	12,00							49,60		21,60	16,80	
PANTONE 5473 C	7,74							17,25		65,70	9,31	
PANTONE 5477 C	22,38							8,08		50,76	18,78	
PANTONE 547 C	11,77							51,86		27,08	9,29	
PANTONE 5483 C	3,48							5,77		86,48	4,27	
PANTONE 5487 C	8,30							2,24		82,56	6,90	
PANTONE 548 C	20,83						6,75	18,85		15,87		37,70
PANTONE 5493 C	1,00							1,40		96,10	1,50	
PANTONE 5497 C	2,85							0,62		94,06	2,47	
PANTONE 549 C	3,90						1,13	3,04		91,93		
PANTONE 5503 C	0,54							0,61		98,08	0,77	
PANTONE 5507 C	0,83							0,22		97,90	1,05	
PANTONE 550 C	2,08						0,61	1,30		96,01		
PANTONE 5513 C	0,19							0,28		99,16	0,37	
PANTONE 5517 C	1,04				0,52			0,44		97,90	0,10	
PANTONE 551 C					0,14			0,80		98,54	0,52	
PANTONE 5523 C	0,14							0,14		99,48	0,24	
PANTONE 5527 C	0,29							0,07		99,25	0,39	

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PANTONE 552 C					0,26			0,32		99,10	0,32	
PANTONE 5535 C	26,64			4,36					21,09	23,64	24,27	
PANTONE 553 C	47,00					15,00		10,00		17,50	10,50	
PANTONE 5545 C	5,30			13,50					23,00	58,20		
PANTONE 554 C	52,50					16,00		8,91		22,20	0,39	
PANTONE 5555 C	6,80								2,60	86,10	4,50	
PANTONE 555 C	44,40					11,70		8,10		35,20	0,60	
PANTONE 5565 C	2,40								0,86	94,80	1,94	
PANTONE 5575 C	1,30								0,50	97,10	1,10	
PANTONE 557 C	4,80					1,67		0,93		92,60		
PANTONE 5585 C	0,70								0,25	92,05	0,60	6,40
PANTONE 558 C	2,73					0,98		0,49		95,80		
PANTONE 5595 C	0,31			0,09					0,15	99,27	0,18	
PANTONE 559 C	1,70					0,67		0,33		97,30		
PANTONE 5605 C	43,40		9,20					18,20		13,70	15,50	
PANTONE 560 C	15,40		4,60						24,00	39,00	17,00	
PANTONE 5615 C	20,83							1,70	1,57	64,00	11,90	
PANTONE 561 C			2,40						28,00	48,60	7,00	14,00
PANTONE 5625 C	11,46							1,07		82,00	5,47	
PANTONE 562 C				7,30				2,20	28,20	55,30		7,00
PANTONE 5635 C	3,58							0,30		94,16	1,96	
PANTONE 563 C				1,06					3,72	78,32		16,90
PANTONE 5645 C	1,62							0,16		97,15	1,07	
PANTONE 564 C				0,68				0,05	1,77	70,50		27,00
PANTONE 5655 C	1,12							0,09		98,02	0,77	
PANTONE 565 C				0,41					0,95	82,14		16,50
PANTONE 5665 C	0,72							0,04		98,70	0,54	
PANTONE 566 C				0,25					0,45	99,30		
PANTONE 567 C				12,20					32,50	22,30	4,30	28,70
PANTONE 568 C				6,30					29,30	41,80	1,60	21,00
PANTONE 569 C				2,34				0,06	31,30	64,90	1,40	
PANTONE 570 C				0,60					3,77	70,40	0,23	25,00
PANTONE 571 C				0,42				0,06	1,37	71,50		26,65
PANTONE 572 C	0,07			0,29					0,99	87,50		11,15
PANTONE 573 C	0,08			0,22					0,59	86,50		12,61
PANTONE 5743 C	58,40		16,00					11,30		11,00	3,30	
PANTONE 5747 C	60,80		19,00					12,20		8,00		
PANTONE 574 C	63,00		11,50					7,71		16,60	1,19	
PANTONE 5753 C	53,00		10,00					6,10		28,50	2,40	
PANTONE 5757 C	60,00		9,10					5,40		22,70		2,80
PANTONE 575 C	67,90		5,30					5,84		20,60	0,36	
PANTONE 5763 C	22,70		4,70					3,40		55,00	14,20	
PANTONE 5767 C	33,94		3,70					2,40		59,00	0,96	
PANTONE 576 C	60,10		3,20					4,20		32,20	0,30	
PANTONE 5773 C	8,26		2,60					1,92		86,70	0,52	
PANTONE 5777 C	13,00		1,77					1,10		83,75	0,38	
PANTONE 577 C	8,60		0,60					0,73		74,17		15,90
PANTONE 5783 C	3,00		1,20					0,85		94,65	0,30	
PANTONE 5787 C	3,67		1,03					0,70		84,60		10,00
PANTONE 578 C	4,25		0,45					0,50		94,80		
PANTONE 5793 C	1,10		0,70					0,50		97,70		
PANTONE 5797 C	2,05		0,67					0,43		87,85		9,00
PANTONE 579 C	3,30		0,38					0,42		95,90		
PANTONE 5803 C	0,54		0,45					0,32		89,69		9,00

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PANTONE 5807 C	1,18		0,37					0,25		82,00		16,20
PANTONE 580 C	2,14		0,28					0,28		97,30		
PANTONE 5815 C	61,50		17,30					7,70		11,80	1,70	
PANTONE 581 C	81,00		1,40							6,10	11,50	
PANTONE 5825 C	53,00		8,00					4,00		34,00	1,00	
PANTONE 582 C	93,64		0,18					0,18			6,00	
PANTONE 5835 C	22,46		3,60					1,70		72,00	0,24	
PANTONE 583 C	89,25		0,30					0,35		8,70	1,40	
PANTONE 5845 C	12,30		1,84					0,88		84,70	0,28	
PANTONE 584 C	41,90		0,50					0,30		57,30		
PANTONE 5855 C	4,10		1,00					0,50		85,60		8,80
PANTONE 585 C	19,00		0,38					0,25		80,37		
PANTONE 5865 C	3,72		0,23					0,04		95,50	0,51	
PANTONE 586 C	8,76		0,22					0,12		76,90		14,00
PANTONE 5875 C	2,11		0,14							69,50	0,35	27,90
PANTONE 587 C	4,93		0,14					0,04		80,99		13,90
PANTONE 601 C	4,60		0,10							87,00	0,02	8,28
PANTONE 602 C	10,18	0,37	0,10							89,30	0,05	
PANTONE 603 C	22,65		0,28							49,00	0,07	28,00
PANTONE 604 C	48,00		0,32							35,20	0,20	16,28
PANTONE 605 C	92,50		0,46							6,60	0,44	
PANTONE 606 C	97,20		1,64						0,33		0,83	
PANTONE 608 C	3,92		0,12							95,90	0,06	
PANTONE 609 C	7,50		0,17						0,05	92,18	0,10	
PANTONE 610 C	21,44		0,33						0,07	78,00	0,16	
PANTONE 611 C	59,01		0,38							40,00	0,61	
PANTONE 612 C	85,70		0,60							12,50	1,20	
PANTONE 613 C	96,20		1,10								2,70	
PANTONE 614 C	2,39		0,13							97,30	0,18	
PANTONE 615 C	3,79		0,14							78,80	0,27	17,00
PANTONE 616 C	7,35		0,24							82,80	0,41	9,20
PANTONE 617 C	16,06		0,39							75,30	0,75	7,50
PANTONE 618 C	46,65		0,85							50,80	1,70	
PANTONE 619 C	79,70		1,20							15,70	3,40	
PANTONE 620 C	89,50		1,50							4,00	5,00	
PANTONE 621 C	0,43								0,13	82,30	0,25	16,89
PANTONE 622 C	0,64								0,28	91,60	0,43	7,05
PANTONE 623 C	1,39								0,63	80,20	0,93	16,85
PANTONE 624 C	4,20								1,80	76,00	2,20	15,80
PANTONE 625 C	11,10								5,70	78,40	4,80	
PANTONE 626 C	9,58			15,00					43,00	31,70	0,72	
PANTONE 627 C	13,60		6,20						54,40	10,20	15,60	
PANTONE 628 C	0,26			0,09				0,31		88,00		11,34
PANTONE 629 C	0,21							0,60		75,73	0,16	23,30
PANTONE 630 C	0,20		0,16					1,25		91,89		6,50
PANTONE 631 C	0,85							3,14		95,57	0,44	
PANTONE 632 C	2,30							10,20		86,89	0,61	
PANTONE 633 C	4,50							27,00		67,50	1,00	
PANTONE 634 C	6,36							53,00		40,00	0,64	
PANTONE 635 C	0,33			0,11				0,81		84,00		14,75
PANTONE 636 C	0,18		0,09					1,33		71,50		26,90
PANTONE 637 C	0,36		0,12					2,82		80,50		16,20
PANTONE 638 C			0,08					6,10		53,00	1,17	39,65
PANTONE 639 C								24,28	7,00	39,00	0,82	28,90

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PANTONE 641 C								30,90	4,10	22,50		42,50
PANTONE 642 C						0,20		0,18		99,42	0,20	
PANTONE 643 C						0,27		0,30		99,18	0,25	
PANTONE 644 C						1,21		1,03		97,01	0,75	
PANTONE 645 C						3,05		2,82		92,74	1,39	
PANTONE 646 C						5,60		5,00		87,47	1,93	
PANTONE 647 C						17,50		22,90		55,82	3,78	
PANTONE 648 C						32,28		42,20		19,36	6,16	
PANTONE 649 C						0,22		0,07		99,60	0,11	
PANTONE 650 C						0,47		0,26		99,09	0,18	
PANTONE 651 C						1,43		0,87		97,22	0,48	
PANTONE 652 C					2,30			3,30		66,00	0,40	28,00
PANTONE 653 C						19,86		21,08		55,06	4,00	
PANTONE 654 C						27,82		54,08		15,12	2,98	
PANTONE 655 C						42,30		45,49		9,49	2,72	
PANTONE 658 C						2,00		1,60		72,60	0,38	23,42
PANTONE 659 C						5,20		4,93		89,40	0,47	
PANTONE 660 C						11,00		15,00		54,00		20,00
PANTONE 661 C						23,20		29,40		21,80	0,42	25,18
PANTONE 662 C						42,90		28,40		4,30	3,00	21,40
PANTONE 663 C			0,08				0,21			74,00	0,18	25,53
PANTONE 664 C			0,07				0,26			71,00	0,19	28,48
PANTONE 665 C			0,11				0,52			75,00	0,48	23,89
PANTONE 666 C			0,41				1,58			86,84	0,97	10,20
PANTONE 667 C					2,90		3,50			77,00	2,40	14,20
PANTONE 668 C					8,40		8,90			79,00	3,70	
PANTONE 669 C					19,00		21,40			57,00	2,60	
PANTONE 670 C					0,30	0,25				79,50	0,10	19,85
PANTONE 671 C					0,33	0,67				73,00	0,15	25,85
PANTONE 672 C					0,58	2,20				86,20	0,25	10,77
PANTONE 673 C					1,10	4,40				72,40	0,40	21,70
PANTONE 674 C					2,02	12,00				50,80	0,88	34,30
PANTONE 676 C				5,80		61,20				15,00	2,20	15,80
PANTONE 677 C					0,30	0,13				87,00	0,20	12,37
PANTONE 678 C		0,36				1,10				98,25	0,29	
PANTONE 679 C					0,43	0,52				98,75	0,30	
PANTONE 680 C					1,26	2,41				77,00	1,13	18,20
PANTONE 681 C					4,00	7,60				79,10	2,10	7,20
PANTONE 682 C					7,80	18,20				59,50	3,20	11,30
PANTONE 683 C					11,80	39,00				28,20	6,70	14,30
PANTONE 684 C				0,10	0,55					99,17	0,18	
PANTONE 685 C					0,78	0,38				98,58	0,26	
PANTONE 686 C					1,05	0,83				97,67	0,45	
PANTONE 687 C					2,57	2,60				93,90	0,93	
PANTONE 688 C					6,00	7,80				84,25	1,95	
PANTONE 689 C					10,90	28,30				57,30	3,50	
PANTONE 690 C					20,61	43,01				31,36	5,02	
PANTONE 691 C	0,50				0,50					77,85	0,15	21,00
PANTONE 692 C	0,80				0,89					98,00	0,31	
PANTONE 693 C	1,55				1,83					95,98	0,64	
PANTONE 694 C			1,50			4,20				55,80	1,50	37,00
PANTONE 695 C				11,20	4,80					81,20	2,80	
PANTONE 696 C				22,60	14,10					57,50	5,80	
PANTONE 697 C				27,80	22,20					42,20	7,80	

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PANTONE® COLOR	OGG 91335 yellow	OGG 91350 yellowish orange	OGG 91570 orange	OGG 91770 red	OGG 91778 dark red	OGG 91660 pink	OGG 91960 violet	OGG 91116 blue	OGG 91410 green	OGG 91001 white	OGG 91888 black	OGG 91011 blending material
PANTONE 698 C	0,44				0,52					99,04		
PANTONE 699 C				0,83	0,46					81,58	0,13	17,00
PANTONE 700 C				1,53	1,33					96,90	0,24	
PANTONE 701 C				2,10	3,00					79,80	0,40	14,70
PANTONE 702 C				4,85	9,76					74,00	0,69	10,70
PANTONE 704 C				24,30	33,50					39,50	2,70	
PANTONE 705 C	0,30				0,39					81,31		18,00
PANTONE 706 C			0,18		0,60	0,10				90,80		8,32
PANTONE 707 C				0,98	1,18					89,80	0,04	8,00
PANTONE 708 C				1,63	2,72					77,00	0,05	18,60
PANTONE 709 C				5,80	9,70					66,83	0,07	17,60
PANTONE 710 C				16,20	21,98					50,50	0,12	11,20
PANTONE 711 C				23,50	24,50					41,50	0,55	9,95
PANTONE 712 C	0,41		0,90							76,66	0,03	22,00
PANTONE 713 C	0,80		1,45							60,70	0,05	37,00
PANTONE 719 C	0,70		0,61							89,87	0,12	8,70
PANTONE 720 C	1,55		1,00							97,25	0,20	
PANTONE 721 C	3,42		2,27							82,00	0,41	11,90
PANTONE 722 C	24,00			6,90						68,20	0,90	
PANTONE 723 C		38,70		10,00						49,00	2,30	
PANTONE 724 C		56,00	34,80							3,00	6,20	
PANTONE 725 C		39,50	52,00								8,50	
PANTONE 726 C	1,35		0,69							97,64	0,32	
PANTONE 727 C		2,80		0,70						96,00	0,50	
PANTONE 728 C		7,20		1,60						90,10	1,10	
PANTONE 729 C		15,80		3,92						78,85	1,43	
PANTONE 730 C	37,40			11,10						43,30	2,80	5,40
PANTONE 731 C		47,80		27,80							10,00	14,40
PANTONE 732 C	41,90		33,20							9,60	8,80	6,50
PANTONE 7409 C	78,42				1,57					19,92	0,08	
PANTONE 7416 C	38,50				10,80					50,60	0,10	
PANTONE 7417 C	42,02		4,67		13,54					39,68	0,09	
PANTONE 7418 C				22,70	11,40			0,60		48,20		17,10
PANTONE 7426 C		11,80				55,00			0,76	15,64		16,80
PANTONE 7427 C	3,60				71,70		1,30			22,70	0,70	
PANTONE 7434 C			5,70			50,10				41,80	2,40	
PANTONE 7447 C					6,90		12,40			76,00	4,70	
PANTONE 7458 C								1,70		97,50	0,80	
PANTONE 7459 C		2,30					0,60	6,10		91,00		
PANTONE 7460 C								14,90	3,10	24,10		57,90
PANTONE 7466 C								4,40	5,50	34,70		55,40
PANTONE 7474 C			1,20					11,40	13,10	73,50	0,80	
PANTONE COOL GRAY 10C	1,50		1,00							75,80	6,60	15,10
PANTONE COOL GRAY 11C	2,80		1,80							81,50	13,90	
PANTONE COOL GRAY 1C	0,07		0,03							99,70	0,20	
PANTONE COOL GRAY 2C	0,04		0,04					0,02		99,40	0,50	
PANTONE COOL GRAY 4C	0,25		0,04							98,89	0,82	
PANTONE COOL GRAY 5C	0,80		0,10					0,04		97,76	1,30	
PANTONE COOL GRAY 8C	1,20		0,24							78,26	3,30	17,00
PANTONE REFLEX BLUE C							7,70	33,70		7,00		51,60
PANTONE RHODAMINE RED C					3,10	29,30						67,60
PANTONE WARM RED C				51,10	1,40					47,50		
PANTONE WARM GRAY 11C	8,60		6,60							74,90	9,90	
PANTONE WARM GRAY 2C	0,06		0,10							99,54	0,30	

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PANTONE WARM GRAY 5C	1,00		0,50							96,90	1,60	
PANTONE WARM GRAY 6C	1,20		0,80							96,20	1,80	
PANTONE WARM GRAY 7C	2,50		1,40							93,20	2,90	
PANTONE WARM GRAY 8C	3,60		2,30							90,10	4,00	

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Technical Information Nr. 3.60/5

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