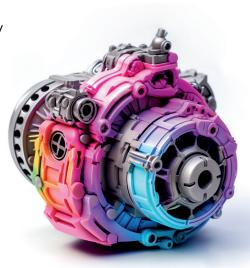
# NT K+D AG

Plastics & sealing technology 3D printing





## **NT-Colour Selection**

RAL | CMYK | RGB | HEX







### Introduction

Whether you want your printed parts to shine in vibrant colours or add a touch of elegance to your prototype, the RAL colour selection offers a wide range of intense hues, from vibrant primaries to subtle pastels. Using RAL colours allows for precise colour matching and guarantees a consistent look for all your printed components.

#### Why RAL?

The RAL colours listed here can be used in any case. Other RAL colours are possible after consultation; however, they cannot be realised in every case as some shades are not available as spray paint. Colours from other palettes such as Pantone, HKS or NCS are only possible after consultation.

#### What is the difference in the type of colouring?

In the FDM process, parts are usually produced with a single-colour filament, whereas in the PolyJet or MJF process, the parts are coloured directly during the printing process. In principle, every manufactured object, regardless of the process, can be lacquered in one or more colours (RAL) and provided with a transparent protective lacquer in the final finishing stage.

#### Which materials can be lacquered?

FDM materials such as ABS, ASA and PLA are ideal for lacquering, with PLA being the most suitable.

PolyJet materials can be used without any problems. However, a special rubber lacquer must be used for flexible PolyJet materials, and the colour selection is limited. The reason for this is that the colour of flexible materials flakes off over time.

MJF-PA12 can be painted with acrylic paints. The prerequisite for this is that the part is completely dry.

#### Which FDM materials have the widest range of filament colours?

Sometimes you are happy if the object is already in a certain colour from the ground up. However, not every FDM material has the same range of colours.

PLA and PETG have the widest range of different filament colours. Other FDM materials are usually only available in natural, white and black. For transparent materials we can recommend our 3D-PET.

#### **File formats**

#### **STEP**

or STP, is a standard for describing product data in the additive industry. For example, a perfect sphere is described by formula.

#### **STL**

The STL format describes the surface of 3D bodies with the help of triangular facets. No sphere is defined here, but only individual triangles with coordinates.

#### OBJ + MTL (accompanying file format MTL for textures/colours)

An OBJ file is a standard 3D image format, it contains a three-dimensional object with 3D coordinates, object with 3D coordinates, texture maps, polygon areas and other object information.

#### 3MF

The 3MF format contains a 3D model that includes textures, mesh, colours, materials, scaling and a print ticket with recommended print options.

It is the modelling language for virtual reality and can be navigated in three dimensions. in three dimensions. It contains coordinates and colours that define each object and shape.

### Key data

3D

Resolution





STL Resolution 0.01 mm STL Resolution 0.8 mm

Recommended resolution:

#### Multi-component file

For assembled 3D data or assemblies, it is important that all models have the same zero point.

From experience, we recommend that you use your file in the 3MF file format, as this is usually the least affected by problems in the production process.





## PolyJet and Multi Jet colour spectrum

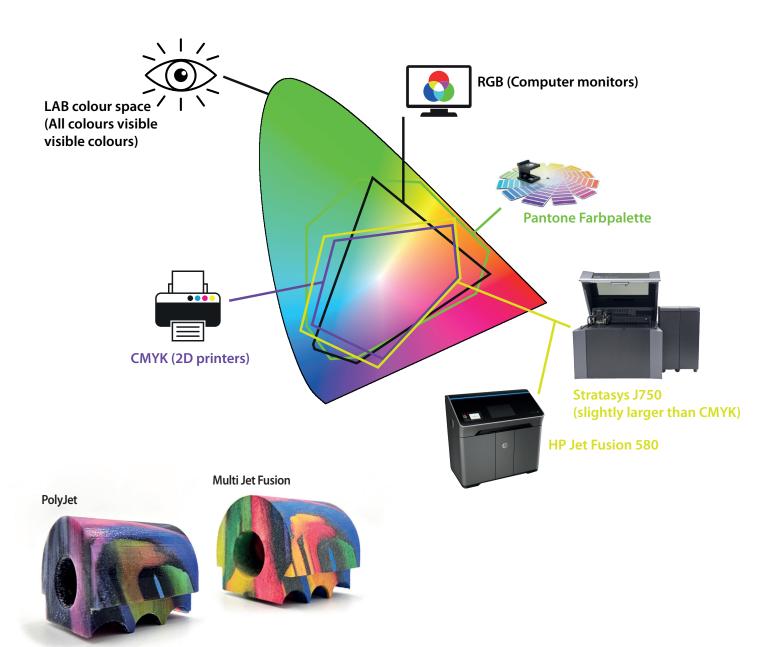
In PolyJet, your objects can be coloured directly during the printing process. Similar to conventional 2D printing, your printed part can be coloured in multiple colours from all sides.

PolyJet offers an astonishingly wide colour gamut, which makes it possible to display impressive and vivid colours in 3D-printed 3D printed parts. The J750 is known as one of the most powerful colour printers on the market, offering over 500,000 possible colours.

It is important to note that the colour space does not include all Pantone and RGB colours. In particular, pure reds are limited with the PolyJet. Although the J750 colour space is very extensive, there are areas that the J750 cannot reach, e.g. Pantone and RGB. The CMYK colour space, on the other hand, is completely included and can be reproduced without any problems.

#### Multi Jet Fusion (MJF)

Parts from the Multi Jet Fusion are not only stable, but can also be printed in a wide range of colours. The printable colour range of the MJF is comparable to the PolyJet colour space.







## **Colour matrix**

With this colour matrix we present a clear selection of colour variations for your PolyJet and MJF printing projects. The colour matrix is not just a simple palette, but a comprehensive tool so that you know exactly which shades you can choose for your project.

21	R = 99 G = 49	R = 77 G = 33	R = 133 G = 70	R = 144 G = 77	R = 158 G = 108	R = 163 G = 108	R = 193 G = 121	R = 217 G = 145	R = 217 G = 171	R = 233 G = 184	R = 214 G = 138	R = 225 G = 166	R = 210 G = 155	R = 223 G = 177	R = 227 G = 182	R = 247 G = 193	R = 235 G = 193	R = 236 G = 202	R = 220 G = 189	R = 244 G = 194		
20	B = 31 R = 57	B = 19 R = 64 G = 43	B = 49 R = 95 G = 59	B = 47 R = 97 G = 43	B = 77 R = 171 G = 95	B = 84 R = 138 G = 93	B = 87 R = 207 G = 158	B = 111 R = 179	B = 149 R = 188	B = 164 R = 219	B = 124 R = 210 G = 153	B = 131 R = 235 G = 171	B = 124 R = 175	B = 138 R = 210	B = 157 R = 221	B = 155 R = 206	B = 156 R = 230 G = 181	B = 177 R = 255	B = 166 R = 239	B = 180 R = 232		
20	G = 28 B = 29 R = 252	B = 40 R = 252	B = 44 R = 252	B = 29 R = 252	B = 67 R = 233	B = 70 R = 221	B = 118 R = 202	G = 129 B = 95 R = 201	G = 125 B = 95 R = 201	G = 169 B = 159 R = 201	B = 113 R = 206	B = 126 R = 201	G = 135 B = 116 R = 201	G = 151 B = 121 R = 213	G = 174 B = 141 R = 223	G = 161 B = 138 R = 231	B = 150 R = 234	G = 204 B = 175 R = 250	G = 208 B = 180 R = 252	G = 166 B = 149 R = 247	R = 255	R = 255
19	G = 210	G = 219	G = 235	G = 249	G = 248	G = 243	G = 244	G = 235	G = 244	G = 237	G = 227	G = 227	G = 217	G = 201	G = 205	G = 201	G = 201	G = 201	G = 201	G = 207	G = 255	G = 0
	B = 204	B = 204	B = 204	B = 204	B = 208	B = 212	B = 219	B = 225	B = 245	B = 252	B = 245	B = 255	B = 245	B = 228	B = 221	B = 214	B = 255	B = 0				
18	R = 252	R = 252	R = 252	R = 252	R = 223	R = 205	R = 179	R = 175	R = 175	R = 175	R = 184	R = 175	R = 175	R = 194	R = 210	R = 221	R = 223	R = 249	R = 252	R = 244	R = 239	R = 0
	G = 189	G = 202	G = 227	G = 248	G = 245	G = 237	G = 239	G = 226	G = 238	G = 230	G = 214	G = 214	G = 198	G = 176	G = 181	G = 176	G = 176	G = 176	G = 176	G = 184	G = 239	G = 255
	B = 177	B = 177	B = 177	B = 177	B = 184	B = 190	B = 200	B = 211	B = 239	B = 252	B = 239	B = 255	B = 239	B = 215	B = 204	B = 196	B = 239	B = 0				
17	R = 252	R = 252	R = 252	R = 252	R = 214	R = 189	R = 155	R = 150	R = 150	R = 150	R = 160	R = 150	R = 150	R = 174	R = 197	R = 210	R = 214	R = 249	R = 252	R = 241	R = 224	R = 0
	G = 169	G = 185	G = 220	G = 247	G = 243	G = 233	G = 235	G = 218	G = 235	G = 223	G = 202	G = 202	G = 181	G = 151	G = 157	G = 151	G = 151	G = 151	G = 151	G = 160	G = 224	G = 0
	B = 153	B = 153	B = 153	B = 153	B = 161	B = 170	B = 183	B = 197	B = 235	B = 251	B = 235	B = 255	B = 235	B = 202	B = 186	B = 175	B = 224	B = 255				
16	R = 253 G = 147 B = 128	R = 253 G = 169 B = 128	R = 253 G = 210 B = 128	R = 253 G = 246 B = 128	R = 206 G = 239 B = 138	R = 173 G = 228 B = 148	R = 131 G = 231 B = 164	R = 125 G = 210 B = 183	R = 125 G = 230 B = 230	R = 125 G = 214 B = 250	R = 137 G = 190 B = 230	R = 125 G = 190 B = 255	R = 125 G = 162 B = 255	R = 156 G = 126 B = 255	R = 183 G = 133 B = 255	R = 200 G = 126 B = 255	R = 206 G = 126 B = 230	R = 249 G = 126 B = 189	R = 253 G = 126 B = 170	R = 239 G = 137 B = 156	R = 210 G = 210 B = 210	
14	R = 253 G = 125 B = 102	R = 253 G = 151 B = 102	R = 253 G = 202 B = 102	R = 253 G = 244 B = 102	R = 196 G = 236 B = 115	R = 158 G = 223 B = 128	R = 106 G = 226 B = 146	R = 100 G = 200 B = 169	R = 100 G = 224 B = 223	R = 100 G = 207 B = 249	R = 115 G = 177 B = 223	R = 100 G = 177 B = 255	R = 100 G = 144 B = 255	R = 136 G = 100 B = 255	R = 169 G = 108 B = 255	R = 189 G = 100 B = 255	R = 197 G = 100 B = 223	R = 248 G = 100 B = 175	R = 253 G = 100 B = 153	R = 236 G = 115 B = 135	R = 195 G = 195 B = 195	
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	G = 105	G = 134	G = 195	G = 243	G = 235	G = 219	G = 222	G = 192	G = 221	G = 199	G = 166	G = 166	G = 125	G = 75	G = 84	G = 75	G = 75	G = 75	G = 75	G = 92	G = 180	G = 255
	B = 77	B = 77	B = 77	B = 77	B = 92	B = 107	B = 128	B = 154	B = 219	B = 248	B = 219	B = 255	B = 219	B = 162	B = 135	B = 116	B = 180	B = 255				
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	G = 83	G = 119	G = 186	G = 240	G = 232	G = 213	G = 218	G = 183	G = 215	G = 192	G = 153	G = 153	G = 108	G = 51	G = 60	G = 51	G = 51	G = 51	G = 51	G = 69	G = 164	G = 0
	B = 51	B = 51	B = 51	B = 51	B = 69	B = 84	B = 109	B = 139	B = 213	B = 248	B = 213	B = 255	B = 213	B = 149	B = 119	B = 96	B = 164	B = 255				
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	G = 62	G = 102	G = 177	G = 239	G = 230	G = 209	G = 212	G = 174	G = 211	G = 184	G = 141	G = 141	G = 90	G = 24	G = 36	G = 24	G = 24	G = 24	G = 24	G = 45	G = 149	G = 255
	B = 26	B = 26	B = 26	B = 26	B = 44	B = 64	B = 92	B = 124	B = 209	B = 248	B = 209	B = 255	B = 209	B = 136	B = 102	B = 77	B = 149	B = 0				
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9	R = 228 G = 37 B = 0	R = 228 G = 75 B = 0	R = 228 G = 153 B = 0	R = 228 G = 213 B = 0	R = 143 G = 204 B = 19	R = 85 G = 184 B = 39	R = 7 G = 187 B = 67	R = 0 G = 148 B = 99	R = 0 G = 185 B = 184	R = 0 G = 159 B = 222	R = 21 G = 115 B = 184	R = 0 G = 115 B = 228	R = 0 G = 65 B = 228	R = 54 G = 0 B = 228	R = 103 G = 11 B = 228	R = 133 G = 0 B = 228	R = 144 G = 0 B = 184	R = 222 G = 0 B = 111	R = 228 G = 0 B = 75	R = 204 G = 20 B = 51	R = 120 G = 120 B = 120	
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	G = 33	G = 68	G = 135	G = 189	G = 182	G = 162	G = 167	G = 133	G = 166	G = 142	G = 102	G = 102	G = 57	G = 0	G = 9	G = 0	G = 0	G = 0	G = 0	G = 18	G = 105	G = 28
	B = 0	B = 0	B = 0	B = 0	B = 18	B = 33	B = 58	B = 88	B = 162	B = 197	B = 162	B = 204	B = 162	B = 98	B = 68	B = 45	B = 105	B = 36				
7	R = 174	R = 177	R = 177	R = 177	R = 110	R = 67	R = 6	R = 0	R = 0	R = 0	R = 17	R = 0	R = 0	R = 42	R = 80	R = 104	R = 111	R = 172	R = 177	R = 159	R = 90	R = 247
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	B = 0	B = 0	B = 0	B = 0	B = 15	B = 30	B = 52	B = 78	B = 143	B = 172	B = 143	B = 177	B = 143	B = 86	B = 58	B = 40	B = 90	B = 29				
6	R = 153	R = 153	R = 153	R = 153	R = 95	R = 57	R = 5	R = 0	R = 0	R = 0	R = 14	R = 0	R = 0	R = 35	R = 68	R = 88	R = 95	R = 147	R = 153	R = 135	R = 74	R = 255
	G = 21	G = 51	G = 102	G = 143	G = 135	G = 121	G = 124	G = 99	G = 123	G = 106	G = 77	G = 77	G = 43	G = 0	G = 7	G = 0	G = 0	G = 0	G = 0	G = 14	G = 74	G = 215
	B = 0	B = 0	B = 0	B = 0	B = 13	B = 26	B = 44	B = 67	B = 121	B = 147	B = 121	B = 153	B = 121	B = 73	B = 51	B = 33	B = 74	B = 0				
5	R = 128	R = 128	R = 128	R = 128	R = 80	R = 47	R = 5	R = 0	R = 0	R = 0	R = 11	R = 0	R = 0	R = 30	R = 57	R = 74	R = 80	R = 123	R = 128	R = 113	R = 59	R = 0
	G = 20	G = 43	G = 84	G = 119	G = 113	G = 102	G = 105	G = 82	G = 104	G = 88	G = 64	G = 64	G = 35	G = 0	G = 6	G = 0	G = 0	G = 0	G = 0	G = 11	G = 59	G = 128
	B = 0	B = 0	B = 0	B = 0	B = 10	B = 21	B = 36	B = 56	B = 102	B = 123	B = 102	B = 128	B = 102	B = 61	B = 43	B = 29	B = 59	B = 0				
4	R = 102	R = 102	R = 102	R = 102	R = 64	R = 37	R = 4	R = 0	R = 0	R = 0	R = 9	R = 0	R = 0	R = 23	R = 45	R = 59	R = 64	R = 98	R = 102	R = 91	R = 44	R = 0
	G = 15	G = 33	G = 68	G = 95	G = 91	G = 82	G = 83	G = 66	G = 82	G = 70	G = 51	G = 51	G = 29	G = 0	G = 5	G = 0	G = 0	G = 0	G = 0	G = 8	G = 44	G = 174
	B = 0	B = 0	B = 0	B = 0	B = 8	B = 17	B = 30	B = 44	B = 82	B = 98	B = 82	B = 102	B = 82	B = 49	B = 33	B = 22	B = 44	B = 239				
3	R = 77	R = 77	R = 77	R = 77	R = 47	R = 29	R = 3	R = 0	R = 0	R = 0	R = 6	R = 0	R = 0	R = 18	R = 33	R = 44	R = 47	R = 73	R = 77	R = 68	R = 30	R = 0
	G = 10	G = 26	G = 51	G = 70	G = 68	G = 60	G = 62	G = 49	G = 61	G = 53	G = 37	G = 37	G = 21	G = 0	G = 4	G = 0	G = 0	G = 0	G = 0	G = 6	G = 30	G = 84
	B = 0	B = 0	B = 0	B = 0	B = 6	B = 13	B = 21	B = 32	B = 60	B = 73	B = 60	B = 77	B = 60	B = 36	B = 26	B = 17	B = 30	B = 166				
2	R = 51	R = 51	R = 51	R = 51	R = 31	R = 19	R = 2	R = 0	R = 0	R = 0	R = 5	R = 0	R = 0	R = 11	R = 22	R = 30	R = 31	R = 48	R = 51	R = 44	R = 15	R = 146
	G = 6	G = 17	G = 33	G = 47	G = 44	G = 41	G = 42	G = 32	G = 41	G = 34	G = 26	G = 26	G = 14	G = 0	G = 3	G = 0	G = 0	G = 0	G = 0	G = 5	G = 15	G = 39
	B = 0	B = 0	B = 0	B = 0	B = 4	B = 8	B = 15	B = 21	B = 41	B = 48	B = 41	B = 51	B = 41	B = 24	B = 17	B = 10	B = 15	B = 143				
1	R = 37	R = 32	R = 32	R = 26	R = 16	R = 9	R = 1	R = 0	R = 0	R = 0	R = 2	R = 0	R = 0	R = 6	R = 10	R = 15	R = 16	R = 24	R = 26	R = 22	R = 0	R = 158
	G = 6	G = 10	G = 16	G = 23	G = 22	G = 19	G = 20	G = 17	G = 20	G = 18	G = 13	G = 13	G = 6	G = 0	G = 1	G = 0	G = 0	G = 0	G = 0	G = 2	G = 0	G = 0
	B = 0	B = 0	B = 0	B = 0	B = 2	B = 4	B = 6	B = 10	B = 19	B = 24	B = 19	B = 26	B = 19	B = 11	B = 8	B = 6	B = 0	B = 93				
	Α	В	С	D	Е	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S	Т	U	V





### **RAL colour overview**

On the following pages you will find our RAL overview for 3D printing. Discover a diverse selection of RAL colours to bring your 3D models to life. Our unique RAL numbers allow a precise colour communication.

The RAL overview includes a selection of 210 colour tones, which is roughly equivalent to RAL Classic (213 tones). Expanded colour shades, such as luminous colours, are not included for technical reasons, as their implementation is not always possible.

However, please note that availability may vary depending on the printing process and material. If you have any questions, please do not hesitate to contact us to support your creative vision.



RAL 1000 Green Beige

CMYK 10 10 50 10 RGB 204 197 143 HEX #CCC58E



RAL 1005 Honey Yellow

CMYK 10 30 100 0 RGB 200 159 4 HEX #C89F04



RAL 1013 Oyster White

CMYK 0 5 20 10 RGB 233 229 206 HEX #E9E5CE



RAL 1018 Zinc Yellow

CMYK 0 0 80 0 RGB 243 224 59 HEX #F3E03B



RAL 1024 Ochre Yellow

CMYK 30 40 70 10 RGB 184 156 80 HEX #B89C50



RAL 1033 Dahlia Yellow

CMYK 0 30 90 0 RGB 250 171 33 HEX #FAAB21

RAL 1001

Beige

CMYK 0 20 50 20

RGB 209 188 138

HEX #D1BC8A



RAL 1006 Maize Yellow

CMYK 5 30 90 0 RGB 225 161 0 HEX #F1A100

**RAL 1014 Ivory**CMYK 0 10 40 10

RGB 222 208 159

HEX #DED09F

RAL 1019 Grey Beige

CMYK 5 20 40 40 RGB 164 149 125 HEX #A4957D

 RAL 1026

 Luminous Yellow

 CMYK
 0
 0
 100
 0

 RGB
 245
 255
 0

 HEX
 #F5FF00

RAL 1034
Pastel Yellow
CMYK 0 30 80 0
RGB 237 171 86

#EDAB56

 Sand Yellow

 CMYK
 0
 20
 60
 10

 RGB
 210
 183
 115

 HEX
 #D2B773

**RAL 1002** 



 RAL 1007

 Daffodil Yellow

 CMYK
 0
 40
 100
 0

 RGB
 231
 156
 0

 HEX
 #F79C00

**RAL 1015 Light Ivory**CMYK 0 5 30 10

RGB 234 222 189

HEX #EADEBD

RAL 1020
Olive Yellow
CMYK 1 5 30 40
RGB 154 148 100
HEX #9A9464

RAL 1027

Curry Yellow

CMYK 10 20 90 40

RGB 163 140 21

HEX #A38C15

RAL 1035

 Pearl Beige

 CMYK
 16
 19
 33
 26

 RGB
 162
 153
 133

 HEX
 #A29985

**Signal Yellow**CMYK 5 20 90 0

RGB 247 186 11

HEX #F7BA0B

 RAL 1011

 Brown Beige

 CMYK
 30
 40
 70
 0

 RGB
 173
 122
 79

 HEX
 #AF8A54

RAL 1016 Sulphur Yellow CMYK 10 0 90 0 RGB 234 240 68

HEX #EAF044

 Rape Yellow

 CMYK
 0
 10
 100
 0

 RGB
 238
 201
 0
 0

 HEX
 #EEC900
 FEEC900
 FEEC900

**RAL 1021** 

RAL 1028
Melon Yellow
CMYK 0 30 100 0
RGB 255 171 0
HEX #FFAB00

RAL 1036

Pearl Yellow

CMYK 33 46 80 18

RGB 146 117 73

HEX #927549

RAL 100+
GOIde+ VellowCMYK 5 30 100 0
RGB 226 176 7
HEX #E2B007

RAL 1012
Lemon Yellow
CMYK 10 10 90 0
RGB 217 192 34
HEX #D9C022

Saffron Yellow
CMYK 0 30 70 0
RGB 244 183 83
HEX #F4B752

RAL 1023 Traffic Yellow CMYK 0 10 90 0

RGB 240 202 0 HEX #F0CA00

RAL 1032

Broom Yellow

CMYK 0 30 90 10

RGB 221 178 15

HEX #DDB20F

RAL 1037

Sun Yellow

CMYK 0 40 100 0

RGB 238 162 5

HEX #EEA205

HEX







RAL 2000 Yellow Orange

CMYK 0 50 100 0 RGB 221 121 7 HEX #DD7907



RAL 2005 Luminous Orange

CMYK 0 75 75 5 RGB 255 35 0 HEX #FF2300



RAL 2011 Deep Orange

CMYK 0 55 100 0 RGB 236 124 37 HEX #EC7C25



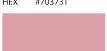
RAL 3002 Carmine Red

CMYK 10 100 90 20 RGB 161 35 43



RAL 3009 Oxide Red

CMYK 5 90 100 80 RGB 112 55 49 HEX #703731



RAL 3015 Light Pink

CMYK 0 50 20 10 RGB 225 166 173



RAL 3022 Salmon pink

CMYK 0 60 70 0 RGB 213 109 86 HEX #D56D56



RAL 3032 Pearl Ruby Red

CMYK 10 100 90 50 RGB 113 21 33 HEX #711521



#### RAL 2001 Red Orange

CMYK 0 80 100 20 RGB 190 78 36 HEX #BE4E24



#### RAL 2007

 Luminous Bright Orange

 CMYK
 0
 50
 100
 0

 RGB
 255
 164
 33
 + FFA421



### RAL 2012

 Salmon Orange

 CMYK
 0
 60
 70
 0

 RGB
 219
 106
 80
 BOB6A50



#### RAL 3003 Rubuy Red

CMYK 0 100 100 40 RGB 141 29 44 HEX #8D1D2C



## RAL 3011

 Brown Red

 CMYK
 20
 100
 100
 40

 RGB
 126
 41
 44

 HEX
 #7E292C
 \*\*\*



#### RAL 3016 Coral Red

CMYK 0 90 90 20 RGB 172 64 52 HEX #AC4034

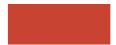


#### RAL 3024



#### RAL 3033 Pearl Pink

CMYK 8 84 72 13 RGB 178 76 67 HEX #B24C43



#### **RAL 2002**

 Vermillov

 CMYK
 0
 90
 100
 10

 RGB
 198
 57
 39
 4

 HEX
 #C63927
 #C63927
 4



### RAL 2008

 Bright Red Orange

 CMYK
 0
 60
 100
 0

 RGB
 243
 117
 44
 44

 HEX
 #F3752C
 \*\*\*



### RAL 2013

 Pearl Orates

 CMYK
 0
 80
 100
 40

 RGB
 149
 69
 39
 +

 HEX
 #954527
 +
 +



#### RAL 3004 Purple Red

CMYK 20 100 100 60 RGB 112 31 41 HEX #701F29



#### RAL 3012 Beige Red

CMYK 5 50 50 10 RGB 203 141 115 HEX #CB8D73



#### **RAL 3017**

 Rose

 CMYK
 0
 80
 50
 10

 RGB
 211
 84
 95

 HEX
 #D3545F



#### RAL 3026

 Luminous Bright Red

 CMYK
 0
 80
 100
 0

 RGB
 255
 0
 0
 HEX
 #FF0000
 + FF0000



#### RAL 4001 Red Lilac

CMYK 60 70 5 10 RGB 138 90 131 HEX #8A5A83



#### RAL 2003 Pastel Orange

CMYK 0 52 100 0 RGB 250 132 43 HEX #FA842B



### RAL 2009

 Traffic Orange

 CMYK
 5
 70
 100
 10

 RGB
 225
 85
 1
 1

 HEX
 #E15501
 #E15501
 FE15501



#### RAL 3000 Flame Red

CMYK 0 100 100 20 RGB 171 37 36 HEX #AB2524



#### RAL 3005 Wine Red

CMYK 20 100 80 40 RGB 94 32 40 HEX #5E2028



## RAL 3013

 Tomato Red

 CMYK
 20
 90
 100
 20

 RGB
 156
 50
 46
 46

 HEX
 #9C322E
 #9C322E
 46



#### RAL 3018 Strawberry Red

 Strawberry Red

 CMYK
 5
 90
 70
 5

 RGB
 209
 65
 82
 +

 HEX
 #D14152
 +
 +



#### RAL 3027 Raspberry Red

CMYK 0 100 70 20 RGB 180 32 65 HEX #B42041



#### RAL 4002 Red Violet

CMYK 40 100 90 5 RGB 147 61 80 HEX #933D50



### RAL 2004

 Pure Orange

 CMYK
 0
 70
 100
 0

 RGB
 231
 91
 18

 HEX
 #E75B12



### RAL 2010

**Signal Orange**CMYK 0 70 100 10

RGB 212 101 47



#### RAL 3001 Signal Red

CMYK 20 100 90 10 RGB 160 33 40 HEX #A02128



### RAL 3007

 Black Rest

 CMYK
 60
 100
 70
 80

 RGB
 64
 34
 37

 HEX
 #402225



## RAL 3014

 Antique Red

 CMYK
 0
 70
 30
 10

 RGB
 212
 116
 121
 +

 HEX
 #D47479
 +
 +



#### RAL 3020 Traffic Red

CMYK 0 100 100 10 RGB 193 18 28 HEX #C1121C



#### RAL 3031 Orient Red

CMYK 20 100 90 20 RGB 172 50 59 HEX #AC323B



#### RAL 4003 Heather Violet

CMYK 10 70 10 0 RGB 209 91 143 HEX #D15B8F







RAL 4004 Claret Violet

CMYK 60 100 50 20 RGB 105 22 57 HEX #691639



#### RAL 4009 Pastel Violet

CMYK 40 40 30 0 RGB 163 137 149 HEX #A38995



#### RAL 5001 Green Blue

CMYK 90 20 0 80 RGB 31 71 100 HEX #1F4764



#### RAL 5007 Brilliant Blue

CMYK 80 20 0 40 RGB 65 103 141 HEX #41678D



#### RAL 5012 Light Blue

CMYK 90 30 10 10 RGB 52 129 184 HEX #3481B8



RAL 5018

 Turquoise Blue

 CMYK
 90
 10
 40
 10

 RGB
 33
 136
 143
 +



### RAL 5023

 Distant Blue

 CMYK
 80
 40
 10
 20

 RGB
 77
 102
 142
 HEX

 #4D668E



### RAL 6001

 Emerald Sevent

 CMYK
 90
 30
 90
 10

 RGB
 40
 113
 62

 HEX
 #28713E
 \*\*\*



### RAL 4005

 Blue Lilac

 CMYK
 60
 100
 5
 10

 RGB
 131
 99
 157

 HEX
 #83639D



#### RAL 4010 Telemagenta

CMYK 10 90 30 0 RGB 198 54 120 HEX #C63678



#### RAL 5002

 Ultramarine Blue

 CMYK
 100
 70
 0
 40

 RGB
 43
 44
 124
 HEX

 HEX
 #2B2C7C
 \*\*\*



#### RAL 5008 Grey Blue

CMYK 60 0 0 90 RGB 49 60 72 HEX #313C48



#### RAL 5013 Cobalt Blue

CMYK 100 60 0 60 RGB 35 45 83 HEX #232D53



#### RAL 5019 Capri Blue

CAPTI Blue

CMYK 100 50 20 10

RGB 26 87 132

HEX #1A5784



#### RAL 5024 Pastel Blue

CMYK 70 20 10 20 RGB 106 147 176 HEX #6A93B0



#### RAL 6002 Leaf Green

CMYK 90 40 90 10 RGB 39 98 53 HEX #276235



### RAL 4006

 Traffic Purple

 CMYK
 50
 100
 0
 0

 RGB
 153
 37
 114

 HEX
 #992572



#### RAL 4011 Pearl Violet

CMYK 47 57 3 7 RGB 135 115 161 HEX #8773A1



#### RAL 5003 Sapphire Blue

CMYK 100 50 0 80 RGB 42 55 86 HEX #2A3756



#### RAL 5009 Azure Blue

CMYK 90 30 10 40 RGB 46 89 120 HEX #2E5978



#### RAL 5014 Pigeon Blue

CMYK 50 20 0 40 RGB 108 124 152 HEX #6C7C98



### RAL 5020

 Ocean Blue

 CMYK
 100
 0
 40
 80

 RGB
 11
 65
 81

 HEX
 #0B4151



### RAL 5025

 Pearl Gentian Blue

 CMYK
 97
 48
 31
 15

 RGB
 41
 100
 120

 HEX
 #296478



#### RAL 6003 Olive Green

CMYK 80 50 80 20 RGB 75 87 62 HEX #4B573E



#### RAL 4007 Purple Violet

CMYK 70 100 20 60 RGB 74 32 59 HEX #4A203B



### RAL 4012

 Pearl Blazers

 CMYK
 50
 50
 20
 23

 RGB
 107
 104
 128
 +

 HEX
 #6B6880
 +
 +



#### RAL 5004 Black Blue

CMYK 100 100 70 40 RGB 29 31 42 HEX #1D1F2A



### RAL 5010

 Gentian Blue

 CMYK
 100
 40
 5
 40

 RGB
 19
 68
 124

 HEX
 #13447C

# THE WAS TO SEE

#### RAL 5015 Sky Blue

CMYK 100 30 0 10 RGB 40 116 178 HEX #2874B2

#### RAL 5021 Water Blue

CMYK 100 20 50 10 RGB 7 115 122 HEX #07737A



### RAL 5026

 Pearl Night Blue

 CMYK
 100
 80
 0
 50

 RGB
 16
 44
 84

 HEX
 #102C54



#### RAL 6004 Blue Green

CMYK 100 50 60 40 RGB 14 66 67 HEX #0E4243

#### RAL 4008

**Signal Violet**CMYK 60 90 0 10
RGB 144 70 132



### RAL 5000

Violet Blue CMYK 100 40 5 40



### RAL 5005

 Signal Blue

 CMYK
 100 40 0 40

 RGB
 21 72 137

 HEX
 #154889



#### RAL 5011 Steel Blue

CMYK 100 60 10 80 RGB 35 44 63 HEX #232C3F



#### RAL 5017 Traffic Blue

CMYK 100 20 5 40 RGB 14 81 141 HEX #0E518D



## RAL 5022

 Night Blue

 CMYK
 100 100 40 40
 40

 RGB
 47 42 90
 40

 HEX
 #2F2A5A



#### RAL 6000 Patina Green

CMYK 80 20 60 20 RGB 50 118 98 HEX #327662



### RAL 6005 Moss Green

CMYK 100 60 90 20 RGB 15 67 54 HEX #0F4336







**RAL 6006 Grey Olive** 

CMYK 90 80 90 20 64 67 59 #40433B HEX



RAL 6011 Resedagreen

CMYK 70 30 70 5 102 130 91 #66825B HEX



RAL 6016

Turquoise Green CMYK 100 30 80 0 RGB 2 106 82

HEX #026A52



RAL 6021 Pale Green

CMYK 50 10 50 10 RGB 134 164 124



RAL 6027 Light Green

CMYK 60 0 30 0 129 192 187 RGR #81C0BB HEX



**RAL 6034** Pastel Turquoise

CMYK 60 10 40 0 127 176 178



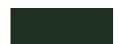
**RAL 7002** Olive Grey

CMYK 30 30 50 40 RGB 129 127 104 HEX #817F68



**RAL 7008** Khaki Grev

CMYK 30 40 70 40 116 102 67 RGB HEX #746643



#### **RAL 6007** Bottle Green

CMYK 80 50 80 60 40 52 36 #283424 HEX



#### **RAL 6012** Black Green

CMYK 100 80 100 20 49 64 61 RGB

#31403D



#### RAL 6017 Yellow Green

CMYK 80 20 100 10 RGB 70 134 65 HEX #468641



#### **RAL 6022** Olive Drab

CMYK 90 80 100 20 RGB 62 60 50 #3E3C32 HEX



#### **RAL 6028** Pine Green

CMYK 100 60 100 0 45 85 70 RGR HEX #2D5546



### RAL 6035

Pearl Green CMYK 90 0 100 75 RGB 27 84 44 HEX #1B542C



#### **RAL 7003** Moss Grev

CMYK 30 20 40 40 RGB 122 123 109 HEX #7A7B6D



### **RAL 7009**

Green Grev CMYK 20 50 40 80 91 98 89 RGB HEX #5B6259



#### **RAL 6008**

Brown Green CMYK 70 50 70 80 53 56 46 HEX #35382E



### RAL 6013

Reed Green CMYK 40 20 60 40 121 124 90 RGB #797C5A



#### **RAL 6018** May Green

CMYK 70 0 90 0 RGB 72 164 63 HEX #48A43F



#### **RAL 6024**

Traffic Green CMYK 90 10 80 10 RGB 0 135 84 #008754 HEX



### **RAL 6029**

Mint Green CMYK 100 20 100 5 RGR 0 114 67 HEX #007243



#### RAL 6036

Pearl Opal Green CMYK 100 10 60 50 RGB 0 93 76 #005D4C HEX



#### **RAI 7004** Signal Grey

CMYK 0 0 0 45 RGB 158 160 161 HEX #9EA0A1



### **RAL 7010**

**Tarpaulin Grey** CMYK 20 5 30 80 RGB 87 93 87 #575D57 HEX



#### **RAL 6009** Fir Green

CMYK 90 50 90 60 38 57 47 #26392F HEX



### **RAL 6014**

Yellow Olive CMYK 80 50 90 60

RGB 68 67 55 #444337 HEX



#### RAL 6019 Pastel Green

CMYK 35 0 40 0 RGB 183 217 177 HEX #B7D9B1



#### **RAL 6025** Fem Green

CMYK 80 30 90 10 RGB 83 117 60 #53753C HEX

## RAL 6032

Signal Green CMYK 90 10 80 0 RGR 15 133 88

## HEX #0F8558

#### **RAL 7000**

Squirrelgrey CMYK 40 10 10 40 126 139 146 HEX #7F8B92



#### **RAL 7005** Mouse Grey

CMYK 30 10 20 60 RGB 107 113 111 HEX #6B716F



### Iron Grey

CMYK 40 10 20 80 85 93 97 RGB HEX #555D61



#### **RAL 6010** Grass Green

CMYK 70 10 80 40 62 117 59 HEX #3E753B



### **RAL 6015**

Black Olive CMYK 80 60 70 40 RGB 61 64 58



### RAL 6020

Chrome Green CMYK 90 60 80 20 RGB 53 71 51



### **RAL 6026**

HEX

**Opal Green** CMYK 100 30 70 40 RGB 0 93 82 #005D52

#### RAL 6033 Mint turquoise

CMYK 80 20 50 0 71 138 132 RGR HEX #478A84

#### RAL 7001 Silver Grev

CMYK 10 0 0 40 143 153 159 RGB HEX #8F999F



#### **RAL 7006** Beige Grey

CMYK 0 10 30 60 RGB 117 111 97 #756F61 HEX



#### **RAL 7012 Basalt Grev**

CMYK 20 0 10 80 RGB 89 97 99 HEX #596163







**RAL 7013 Brown Grey** 

CMYK 10 10 40 80 85 85 72 #555548 HEX



RAL 7023

#### Concrete Grey

CMYK 40 20 40 40 129 132 121 RGB #818479 HEX



#### **RAL 7032** Pebble Grey

CMYK 0 0 20 40 RGB 185 185 168 HEX #B9B9A8



#### **RAL 7037 Dusty Grey**

CMYK 30 20 20 40 RGB 124 127 126 #7C7F7E HEX



#### **RAL 7043** Verkehrsgrau B

CMYK 30 10 20 80 RGR 78 84 81 HEX #4E5451



#### **RAL 7048**

#### Pearl Mouse Grey CMYK 32 32 39 27

RGB 136 129 117 HEX #888175



### RAI 8004

### Copper Brown CMYK 40 80 80 10

RGB 143 78 53 HEX #8F4E35



#### **RAL 8014** Sepia Brown

CMYK 30 60 100 80 73 57 45 RGB HEX #49392D



### **RAL 7015**

HEX

Slategrey CMYK 40 10 10 80 81 86 92 #51565C



### **RAL 7024**

#### **Graphite Grey** CMYK 80 60 50 40

RGB 71 74 80 #474A50 HEX



### **RAL 7033**

Cement Grey CMYK 30 10 30 40 RGB 129 137 121 HEX #818979



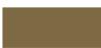
### **RAL 7038**

**Agate Grey** CMYK 30 10 20 20 RGB 180 184 176 #B4B8B0 HEX



#### **RAL 7044** Silk Grey

CMYK 0 0 15 30 189 189 178 RGR #BDBDB2 HEX



### **RAL 8000**

#### Green Brown

CMYK 50 50 80 10 RGB 136 113 66 HEX #887142



### **RAL 8007**

#### Fawn Brown CMYK 60 70 80 20

RGB 111 74 47 HEX #6F4A2F



### RAL 8015

## Chestnut Brown

CMYK 0 90 100 80 99 58 52 RGB HEX #633A34



#### RAL 7016

Anthracite Grey CMYK 60 30 30 80

55 63 67 #373F43 HEX



### **RAL 7026**

**Granite Grey** CMYK 60 20 30 80

55 68 71 RGB #374447 HEX



### RAL 7034

Yellow Grey CMYK 5 5 40 40

RGB 147 145 118 HEX #939176



### **RAL 7039**

### **Quartz Grey**

CMYK 50 40 50 40 RGB 107 105 95 #6B695F HEX



#### **RAL 7045** Telegrau 1

CMYK 20 10 10 40 145 150 154 RGR



### RAL 8001

#### Ocher Brown

CMYK 40 60 90 10 156 107 48 HEX #9C6B30



#### **RAL 8008** Olive Brown

### CMYK 50 60 70 20

RGB 111 79 40 HEX #6F4F28



### RAL 8016

#### Mahogany Brown

CMYK 40 80 80 80 RGB 76 47 38 HEX #4C2F26



### RAL 7021

Black Grey CMYK 50 10 5 95 46 50 52



#### **RAL 7030**

### Stone Grey

CMYK 20 10 20 40 147 147 136 RGB #939388 HEX



### **RAL 7035**

#### Light Grey

CMYK 5 0 5 20 RGB 203 208 204 HEX #CBD0CC



#### **RAL 7040**

### Window Grey

CMYK 20 5 10 40 RGB 157 163 166 #9DA3A6 HEX

### **RAL 7046**

### Telegrau 2

CMYK 30 10 10 40 130 137 142 RGR



#### **RAL 8002**

#### Signal Brown

CMYK 60 80 80 10 123 81 65 HEX #7B5141



### **RAL 8011**

#### **Nut Brown**

CMYK 10 60 100 80 RGB 90 58 41 HEX #5A3A29



### **RAL 8017**

### Chocolate Brown

CMYK 60 80 80 80 RGB 68 50 45 HEX #44322D



#### RAL 7022

### **Umbra Grey**

CMYK 30 20 40 80 75 77 70



### **RAL 7031**

### Blue Grey

CMYK 60 30 30 40 93 105 112 RGB



#### **RAL 7036**

### Platinum Grey

CMYK 10 10 10 40 RGB 154 150 151 HEX #9A9697



#### **RAL 7042**

HEX

### Verkehrsgrau A

CMYK 30 10 20 40 RGB 143 150 149 #8F9695

### **RAL 7047**

#### Telegrau 4 CMYK 0 0 5 20

207 208 207 RGR HEX #CFD0CF



#### RAL 8003

#### Clay Brown

CMYK 50 70 80 10 RGB 128 84 47 HEX #80542F



### **RAL 8012**

#### Red Brown

CMYK 5 100 100 80 RGB 103 56 49



### **RAL 8019**

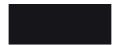
#### **Grev Brown**

CMYK 90 90 80 80 63 58 58 RGB #3F3A3A

HEX







RAL 8022 Black Brown

CMYK 100 100 80 95 33 31 32 HEX #211F20



RAL 8029 Pearl Copper

CMYK 23 80 93 43 119 60 39 RGB HEX #773C27



**RAL 9005** Jet Black

CMYK 100 100 100 95 10 10 13 RGB #0A0A0D HEX



CMYK 3 0 0 0 RGB 247 251 145 #F7FBF5 HEX



**RAL 8023** Orange Brown

CMYK 20 70 100 20 RGB 166 94 47 #A65E2F HEX

RAL 9001

Cream CMYK 0 0 10 5

239 235 220 RGB HEX #EFEBDC

**RAL 9006** 

White Aluminium CMYK 0 0 0 40 RGB 165 168 166 HEX #A5A8A6



**RAL 9017** Traffic Black

CMYK 100 90 100 95 RGB 42 45 47 #2A2D2F HEX

RAL 8024 Beige Brown

HEX

CMYK 30 60 70 40 RGB 121 85 60 #79553C

RAL 9002 **Grey White** 

CMYK 5 0 10 10 RGB 221 222 212 #DDDED4

**RAL 9007** White Aluminium

CMYK 0 0 0 60 RGB 143 143 140 HEX #8F8F8C

**RAL 9018** 

Papyrus White CMYK 10 0 10 20 RGB 207 211 205 HEX #CFD3CD

**RAL 8025** Pale Brown

CMYK 40 50 60 40 117 92 73 #755C49 HEX

RAL 9003 Signal White

CMYK 0 0 0 0 RGB 244 248 244 #F4F8F4

RAL 9010 Pure White

CMYK 0 0 5 0 247 249 239 RGB #F7F9EF HEX

RAL 9022

Pearl Light Grey CMYK 21 14 14 31 RGB 156 156 156 HEX #9C9C9C

**RAL 8028** Terra Brown

CMYK 20 50 70 80 78 59 43 #4E3B2B HEX

RAL 9004 Signal Black

CMYK 100 90 100 80 46 48 50 RGB

HEX #2E3032

RAL 9011 **Graphite Black** 

CMYK 100 100 100 80 RGB 41 44 47 HEX #292C2F

**RAL 9023** Pearl Dark Grey

CMYK 8 6 6 57 RGB 126 129 130 #7E8182 HEX













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