

## PRODUCT OVERVIEW

RAL COLOURS — Innovation and reliability. Worldwide.

# RAL CLASSIC

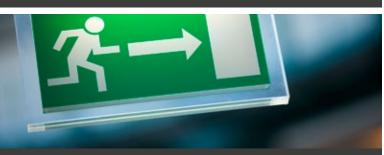
### THE WORLD'S LEADING INDUSTRIAL COLOUR COLLECTION

The RAL CLASSIC colour collection has for 90 years been indispensable in the clear communication of colours and a guarantee for obtaining exactly the same colours – worldwide.

Steel sculpture by world famous sculptor Anish Kapoor and star architect Cecil Balmond is London's Olympic landmark. The ArcelorMittal Orbit glows in RAL 3003 Ruby Red.







Emergency exit signs have the colour RAL 6002 Leaf green.

RAL 1004 Golden yellow.

**APPLICATION EXAMPLES** 



Allmilmö – a leading premium brand manufacturer of high-quality kitchen furnishings – produces these kitchen models in RAL 1023 traffic yellow.



Thonet produces the S 43 cantilever chair by Mart Stam in 11 RAL colours.



### **RAL 840-HR**

Primary standards with 213 RAL CLASSIC colours

- Semi matt
- ▶ A5-sized 14.8 x 21.0 cm
- ➤ Colour illustration A6-sized 10.5 x 14.8 cm
- Binding colour samples for colour matching and quality control
  - Including XYZ-values, colour distance from the original standard and reflectance curve
  - Single cards available



### **RAL 841-GL**

Primary standards with 196 RAL CLASSIC colours

- High gloss
- ► A5-sized 14.8 x 21.0 cm
- ≥ Colour illustration A6-sized 10.5 x 14.8 cm
- Binding colour samples for colour matching and quality control
- Including XYZ-values, colour distance from the original standard and reflectance curve
- **≥** Single cards available

### RAL K1

Booklet with 213 RAL CLASSIC colours

**■** Booklet size 10.5 x 20.0 cm

≥ Colour illustration 5.2 x 1.5 cm

▶ 7 colours per page14 colours at a glance

**≥** Gloss



### RAL K1 INDIVIDUAL

Personalised company imprint

#### For further information:

■ ral-individual@ral-ggmbh.com





## RAL K5

Colour fan deck with 213 RAL CLASSIC colours

- U-shaped protective cover
- Full-page colour illustration 5.0 x 15.0 cm
- Well-suited for colour combinations and colour comparisons
- Semi matt or gloss



## RAL K5 INDIVIDUAL

Personalised company imprint

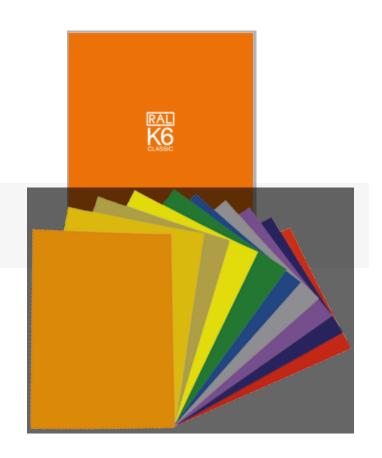
For further information:

ral-individual@ral-ggmbh.com

## RAL K6

Ring binder with all 213 RAL CLASSIC colours

- A4-sized 21.0 x 29.7 cm
- Semi matt
- All 213 RAL CLASSIC colours available as single sheets



## RAL K7

Colour fan deck with 213 RAL CLASSIC colours

- ▶ Fan deck size 5.0 x 15.0 cm
- **≥** Colour illustration 2.0 x 5.0 cm
- **►** Five colours per page
- **≥** Gloss





### RAL F9

Collection of Bundeswehr camouflage colours

- A5-sized (14.8 x 21.0 cm), colour illustration A6-sized (10.5 x 14.8 cm)
- Colour samples for colour matching and quality control
- With production and tolerance information from the Bundeswehr

## RAL K7 INDIVIDUAL

Personalised company imprint

For further information:

■ ral-individual@ral-ggmbh.com



# RAL DESIGN SYSTEM

### THE CIELab-BASED COLOUR SYSTEM

The RAL DESIGN SYSTEM provides 1,625 colours arranged according to hue (H), lightness (L) and chroma (C).

BK Keramik – Central Saint Giles is the urban highlight in London's West End. For the facade designed by Renzo Piano, 140,000 ceramic elements were processed in six different colours: RAL 070 70 80, RAL 050 50 70, RAL 050 50 78, RAL 000 75 00, RAL 110 60 50 und RAL 7035 Light Grey.



APPLICATION EXAMPLES



The company LEICHT Küchen AG uses the colours from the RAL DESIGN SYSTEM. The colour Curcuma is RAL 070 60 60.



The striking architecture of the hotel lounge is as calming as it is stimulating. For harmonious, provocative and surprising colour effects as required, RAL has the ideal colour solution:

RAL DESIGN SYSTEM provides 1,625 colours and one million options.



### RAL D2

Colour fan deck with 1,625 RAL DESIGN SYSTEM colours in protective box

- ► Fan deck format 5.0 x 29.0 cm
- **►** Colour display 5.0 x 2.5 cm
- Semi matt



## RAL D2 INDIVIDUAL

Personalised company imprint

For further information:

■ ral-individual@ral-ggmbh.com

### RAL D4

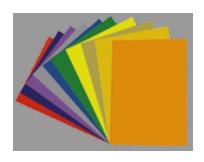
The Colour Atlas with 1,625 RAL DESIGN SYSTEM colours presents the various colour gradients within a colour tone from light to dark, as well as their increasing colour intensity.

- ▶ Atlas size 31.5 x 28.0 cm
- ► Colour size 1.7 x 1.7 cm
- ≥ Semi matt



## RAL DESIGN SYSTEM SINGLE SHEET

Colour samples of RAL DESIGN SYSTEM colours



### DIN A6

- ► A6-sized 10.5 x 14.8 cm\*
- Semi matt

### DIN A4

- ► A4-sized 21.0 x 29.7 cm\*
- ▶ Semi matt
- Available as complete set in ring binders

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\*The 89 dark shades which are no longer included in the revised RAL DESIGN SYSTEM are available as A4- and A6-sized single sheets.



### RAL D6

Box with 1,625 individual sheets

- **■** Box format 49.0 x 26.0 x 17.5 cm
- **▶** RAL DESIGN SYSTEM colours
- Clearly arranged according to the CIELab colour circle
- ► Format DIN A6 (10.5 x 14.8 cm)



### RAL D8

Box with 8 colour fan decks

- **■** Box format 28.0 x 11.5 x 6.5 cm
- CIELab colour circle on the inside cover
- ≥ 1,625 colours
- **►** Fan deck format 10.0 x 3.3 x 5.0 cm
- Clearly arranged system
- ▶ Semi matt

# RAL EFFECT

### THE INNOVATIVE EFFECT COLOURS

As a particular highlight, the RAL EFFECT collection contains 70 metallic colours that harmonise with the remaining 420 solid colours.

Miele – The geometry of the designer range hoods in the DA 7000 line is orientated on the ellipse. As a purpose-built variant, the top and bottom surfaces can be powder-coated in many RAL colours.



Roundboard is a small storage hotspot. For the coating of this piece of furniture, only RAL colours are applied, for example the RAL EFFECT colour shades RAL 120-2 (PAPER), RAL 690-1 (AZURE) and RAL 690-5 (PETROL).



APPLICATION EXAMPLES



Ferrari World Abu Dhabi - One of the largest metal roofs in the world was coated in RAL 9006.



Müller Möbelfabrikanten Mobile Line – Handcrafted designer furniture made of metal, available in many RAL colours.

## RAL E1

Primary standards of all 490 RAL EFFECT colours in a protective case

- **■** Box format 49.0 x 26.0 x 17.5 cm
- 420 solid colours and 70 metallic colours
- Based on waterborne paint system
- A6-sized 10.5 x 14.8 cm
- **≥** Colour illustration 10.5 x 13.8 cm
- Binding colour samples for colour matching and quality control

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- Solid colours semi matt
- ► Metallic colours high gloss



## RAL E3

Colour fan deck with 490 RAL EFFECT colours

- ≥ 420 solid colours and 70 metallic colours
- Each page displays the metallic colour that harmonises with the six solid colours
- Solid colours based on waterborne paint systems, metallic colours based on acrylic paint systems
- ≥ Colour fan deck format 5.0 x 21.0 cm
- Solid colours 5.0 x 2.0 cm, metallic colours 5.0 x 3.8 cm
- ≥ Solid colours semi matt
- ▶ Metallic colours 5.0 x 3.8 cm
- Also available with personalised company print



### RAL E4

Colour fan deck with 70 RAL EFFECT colours

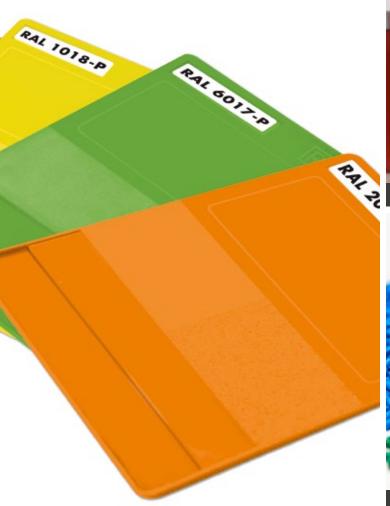
- Colour displayed across full surface 5.0 x 13.0 cm
- ▶ High gloss
- Also available with personalised company print



## RAL PLASTICS THE COLOUR STANDARD FOR PLASTICS

Multi-functional polypropylene plates simplify the reproduction of RAL colours for plastics. An independent RAL colour standard for plastics is now available for the first time with RAL PLASTICS This material is an ideal partner even for innovative building architecture in the 21st century.

Three different surface textures - high gloss polished, VDI 24 and VDI 42 show users the colour dependent on surface roughness.





RAL PLASTICS offers an individual RAL colour standard for plastics.



Material: polypropylene

### RAL P1

The 100 most popular RAL CLASSIC colours as polypropylene colour plates in a protective case



- Binding colour sample for plastics in RAL CLASSIC colours
- ▶ Format 10.5 x 14.8 x 0.3 cm
- ► Three levels of thickness: 0.3 cm, 0.2 cm and 0.1 cm
- Three different surface textures high gloss polished, VDI 24 and VDI 42
- Includes absolute values and colour distance from original plastic sample
- With reflectance curve
- ▶ Protective sleeve for each plastic plate

### RAL P2

200 RAL DESIGN SYSTEM polypropylene colour plates in two protective cases for innovative product and building design

- Binding colour sample for plastics in RAL DESIGN SYSTEM
- ≥ 160 opaque plates
- 40 transparent plates
- Three levels of thickness: 0.3 cm, 0.2 cm and 0.1 cm
- Three different surface textures high gloss polished, VDI 24 and VDI 42
- Includes absolute values and colour distance from original plastic sample
- With reflectance curve
- ▶ Protective sleeve for each plastic plate



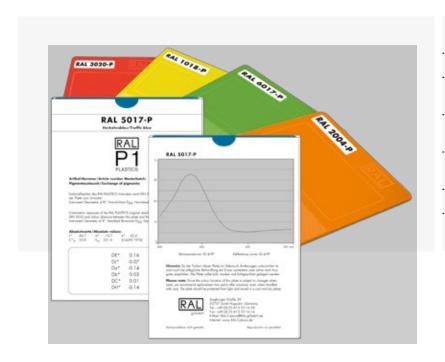


## RAL P1 + P2 SET

All 300 RAL PLASTICS colours in three protective cases

## RAL P1 + P2 SINGLE PLATES

300 RAL PLASTICS colours

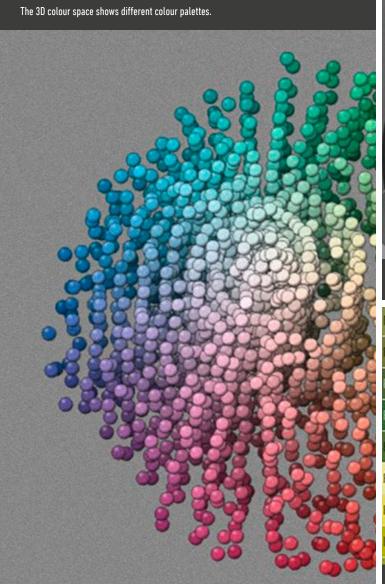


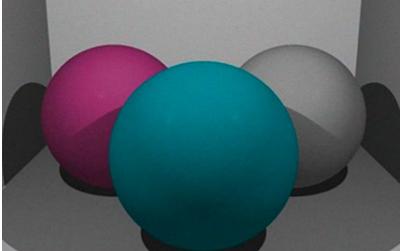
- Binding colour sample for plastics in RAL DESIGN SYSTEM colours
- **▶** Format 10.5 x 14.8 x 0.3 cm
- Three levels of thickness: 0.3 cm, 0.2 cm and 0.1 cm
- Three different surface textures high gloss polished, VDI 24 and VDI 42
- Includes absolute values and colour distance from original plastic sample
- ▶ With reflectance curve
- ▶ Protective sleeve for each plastic plate

# RAL DIGITAL

## THE RAL COLOURS FOR THE COMPUTER

RAL DIGITAL products also open up the digital world of colour. The RAL DIGITAL 5.0 software contains all 2,328 RAL colours and allows you to navigate through the entire colour spectrum. All RAL colours can be exported and integrated into many well-known graphics and CAD programmes.

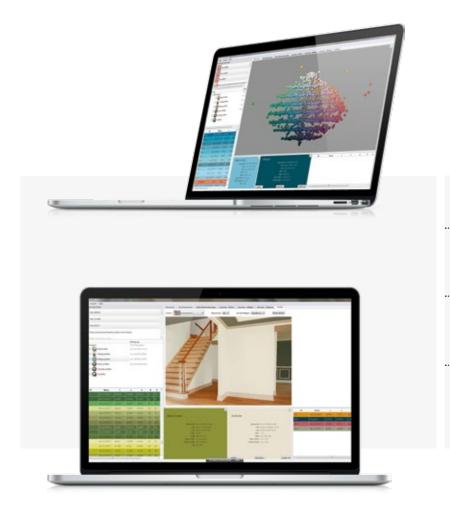




RAL DIGITAL 5.0 enables you to try out colours on images and 3D objects under different lighting conditions, as well as to colour your own images.

RAL E1 EFFECT	60,7254	-11,5464	34,0495	142	152
RAL EL EFFECT	51,6549	-9,20632	32,2807	122	127
RAL E1 EFFECT	43,5657	-14,7751	25,3688	89	109
RAL E1 EFFECT	42,6982	-21,761	27,4859	74	110
RAL EL EFFECT	46,0118	-16,6672	29,8187	93	116
RAL E1 EFFECT	90,624	-6,93984	32,9131	233	231
RAL E1 EFFECT	87,2065	-10,341	54,6095	225	223
RAL E1 EFFECT	72,756	-13,0308	75,1055	183	184

The RAL DIGITAL 5.0 software contains all 2,328 RAL colours.



Software for designers, architects, interior designers and anyone else who works creatively and professionally with colour. RAL DIGITAL enables

- Navigation through the entire colour spectrum and the RAL colour space scale
- The perfect colour tone and harmonious colour combinations to be identified based on many different criteria and specifications
- The innovative depiction of colours in a movable 3D colour space
- The editing of image files: Your own images can be coloured, while colours from images can be analysed and recorded
- An image or colour to be viewed in different types of lighting thanks to the new, innovative light box

## RAL DIGITAL VERSION 5.0

Software with all 2,328 RAL colours for **Win** or **Mac** 

- Contains RGB, HEX, CMYK, LAB, HLC and lightness values for all RAL colours
- Shows inspirational colour harmony recommendations based on monochromatic, adjacent, analogous and complimentary combinations
- Colour search: Find RAL colours based on matches to current commonly used collections or compared to colorimetric values
- Generate and store or export your own colour data for integration into many design and CAD programs, or simple text format for document or spreadsheet analysis

RAL colour palettes can by imported from the following programmes amongst others:

- AutoCAD Colour Book (\*.acb)
- Chromalyzer v1.x (\*.txt)
- ▶ Corel (\*.cpl)
- ≥ Excel (\*.csv)
- ▶ Illustrator (\*.ase)
- ▶ Palette Image (\*.png)
- Jpeg Format (\*.jpg)
- ▶ Photoshop (\*aco)
- Windows Bitmap (\*.bmp)
- ▶ Vector Works [RGB] (\*.xml)
- Quark XPress (\*.qcl)
- Nemetscheck (\*.pal)

You can find a complete list on www.ral-colours.com

### RAL COLORCATCH NANO

Colorimeter

- Features an integrated calibration system
- Magnifies an image six times and measures the colour from just a few pixels
- Shadows or dirt are eliminated during measurement
- Indicates RGB, LAB and CMYK as well as the reflectance values of most selected colour cards
- Additional colour collections can be purchased from within the app
- Contains all 2,328 RAL colours
- \*RAL COLORCATCH NANO works together with
- RAL iCOLOURS
- **Download Apple Store (EUR 8,99)** ■
- **Download Google Play (EUR 9,99)** ■







The colorimeter RAL COLORCATCH NANO measures up to five colours at the same time, regardless of surface and material, and finds the corresponding RAL colour shade. The shade is shown with digital colour values and - using the app RAL iCOLOURS\* – applied to an object directly and sent via e-Mail. During the colour measurement all non-dominating colour shades, shadows or dirt are eliminated automatically.









### RAL iCOLOURS

The app with all RAL colours for iOS and Android devices

- ► Contains all 2,328 RAL colours
- As well as the corresponding LAB, sRGB, CMYK and LRV values

Should the building facade be Lemon Yellow or Sun Yellow? Strawberry Red in the bedroom – RAL iCOLOURS will show you! With the RAL app for Apple and Android devices, you can quickly and easily colour your photos in any RAL COLOUR.

See everything in a new colour with RAL iCOLOURS in three simple steps:

- Photograph an object
- Select the colour range RAL CLASSIC, RAL DESIGN SYSTEM or RAL EFFECT
- Transfer the selected colour shades into the photo

# RAL ACADEMY

### TRAINING AND DEVELOPMENT ON A VERY HIGH LEVEL

The seminars at the RAL ACADEMY on the subject of colour and colour design are aimed at all occupational groups from the areas of architecture, design and trade who want to expand their knowledge of colour and be perceived by their customers as experts in this field.









Colour trends and ambience: trend marketing



### **RAL ACADEMY**

- Training and development for colour designers
- Workshops & seminars as well as shop and atelier talks
- Getting to know and using RAL products
- Insights into colour design, theory & practical exercises
- Top-class speakers and course instructors

Specialists in colour design always keep their expertise up to date. RAL COLOURS is supporting them in this and connects modern scientific knowledge to long term experience in training and development of colour designers at a very high level.

Through the close partnership with the Bergische Universität Wuppertal, Germany and the "Haus der Farbe" in Zürich, Switzerland, professional colour users receive the latest knowledge and benefit from decades of practical experience in theoretical and practical training about topics such as colour and light.

The offer ranges from one day workshops and seminars to two day workshops and shop and atelier talks. Participants not only get to know and learn to use the diverse world of **RAL** products, but also gain profound insights into the world of colour design and connections between light and colour.

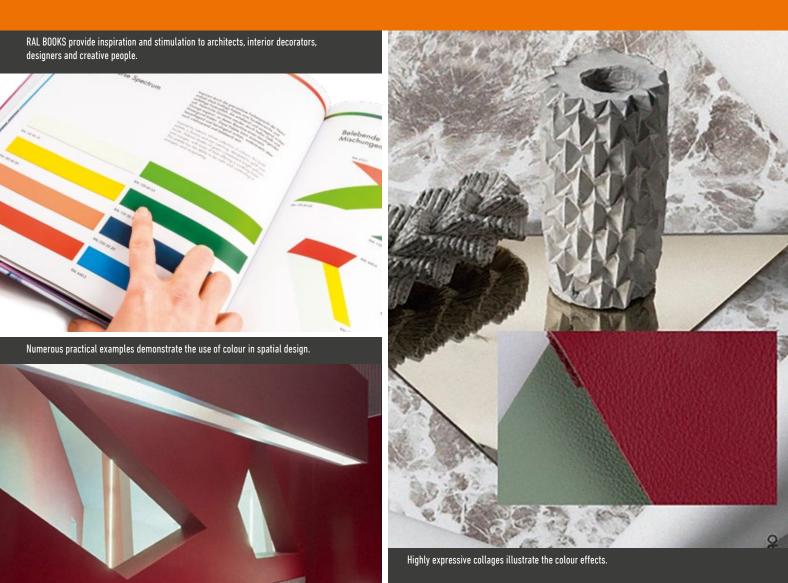
With the RAL ACADEMY events, the colour and design expertise of the participants will benefit. At the same time the academy will establish connections between different professional groups dealing with the topics colour and colour design.

Further information about the topic of training and development at RAL COLOURS can be found at www.ral-akademie.de

# RAL BOOKS

### INSPIRATION AND STIMULATION FOR COLOUR DESIGN

RAL BOOKS offer a selection of indispensable planning tools for design, inspiration, insights and trends in colour. All colour design books are published in two languages – in German/English and sometimes additionally in Chinese/English.

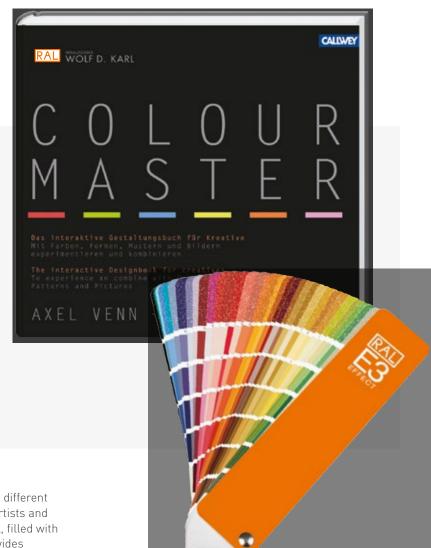


### COLOUR MASTER

The inspiring, interactive design book with endless possibilities for creative people

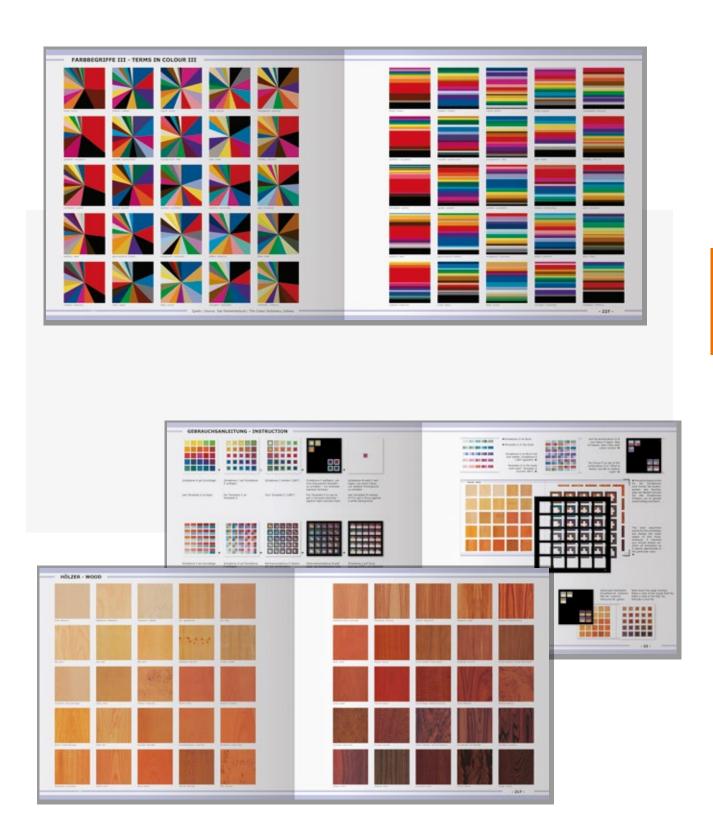
### Book with RAL EFFECT E3 fan deck

- 328 pages of colourfulness in shapes, patterns and pictures
- ≥ 12 colour templates
- **■** Encoded in RAL EFFECT colours
- Format: 32.6 x 29.6 cm, hardcover
- Bilingual: German/English
- Every single page of the book represents an individual experimenting field for endless possibilities



On 328 pages, the book provides inspiration with different shapes and patterns for designers, architects, artists and other creative people. It is an experimenting tool, filled with endless design opportunities. **COLOUR MASTER** provides colour and material images in front of graphical, scenic and art historical backgrounds

At the same time it shows colours and shapes of the past and the future, such as the newest wallpaper art collections from contemporary designers, historical ornaments and decors, colours from fashion, sports, electronics, technics, music, but also colours of health and care, fabrics, woods, stones and surface products from interior construction and from surface design also for the luxurious sector.



### COLOURS FOR HOTELS

The planning manual for designers in the hotel sector

- Adjectives with hotel reference, expressed in colour combinations
- Coded in the RAL DESIGN SYSTEMS
- ≥ 416 pages
- ▶ Format: 24 x 26 cm, hardcover
- Bilingual: German and English
- ➤ With practically relevant design examples in hotels
- ▶ Template for colour combinations





Hotels want to be places of comfort and relaxation for their guests. Sincere hospitality and first class service are a part of this. An appealing hotel ambience in the right professional colour combination provides a warm welcome and a comforting atmosphere. For these purposes, RAL has become the publisher of the book COLOURS FOR HOTELS. The team of authors Corinna Kretschmar-Joehnk, interior designer (Jol Design), and Axel Venn, colour scientist, have written this unique and scientifically funded reference book for colour design and valuable hotel ambience. The colours from the RAL DESIGN SYSTEM serve as a creative basis.





### We set standards. Since 1925.



### RAL QUALITY MARKS A reliable choice

RAL QUALITY MARKS (RAL GÜTEZEICHEN) signal the particularly high level of quality of products and services to consumers. At the same time, they stand for clearly defined values: Companies that use RAL QUALITY MARKS (RAL GÜTEZEICHEN) promise fair, honest and exemplary behaviour. They assume responsibility for their products and services and are thus reliable partners for consumers.



#### RAL COLOURS The language of the world of colour since 1927

RAL COLOURS are the world's leading colour standard for all professional users of colour in industry, trade, architecture and design. The 2328 colour tones deliver the highest level of precision and a varied choice. RAL COLOURS are marketed via our own sales partners in over 40 countries.



### RAL ENVIRONMENT The awarding body for the Blue Angel ecolabel for almost 40 years

Consumers require reliable information in order to act in an environmentally conscious manner. Ecolabels like the "Blue Angel" or the "EU Ecolabel" stand for environmentally friendly goods and services, which are only permitted to carry the environmental label once they have passed a strict testing process. The testing process and the awarding of the environmental labels have been carried out by RAL ENVIRONMENT since 1978.



### RAL LOGO LICENCE Brand marketing and monitoring

RAL LOGO LICENCE quarantees the worth of the tests carried out by Stiftung Warentest by monitoring and licensing advertising that uses the test results. Consumer deception and false advertising are prevented and the tests remain objective and independent. In addition, RAL LOGO LICENCE is available to institutions and companies that want to independently market and/or monitor their brand.



### RAL ACADEMY High quality communication of knowledge

At our seminars, workshops, presentations and talks, we pass on our specialist knowledge to interested parties and a variety of occupational groups. Further high quality training of colour designers is a key focus of the RAL ACADEMY.



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