

## **OKACOLOR – Free Colour and Image Selection on Glass**

The use of coloured glass in architecture is not a modern concept – the sacred buildings of the Middle Ages still impress with their ornate stained glass windows even today.

In the last few decades, the widespread adoption of glass produced by the float process has reduced the number of traditional glass manufactures, with the result that the use of coloured glass has largely become restricted to body tinted float glass, or glass coated with a ceramic frit.

However, the nature and scale of the float production process means that only a few body-tinted colours are available. For fritted glass, the production process is often laborious and time consuming where multi-coloured designs or complex images are to be reproduced as many individual screens are required for the printing process.



OKACOLOR is an innovative new product using a specially developed glass coating technique, which allows the complete reproduction of black and white or multi-coloured images, or solid colour coating of the glass surface.

Due to the high quality of the OKACOLOR coating, the visual results are exceptional with excellent colour consistency, depth, brilliance and contrast maintained.

As the production process utilises digital origination, no bulky and expensive screens are required for the printing process – details are input on disc and the production equipment takes care of the rest! This means that where a motif or graphic image is to be reproduced over the surface of several glass panes, it is likely that OKACOLOR will be the optimum solution in terms of aesthetic quality.

OKACOLOR coatings include inorganic pigments which are not fused into the glass as is the case with screen printed fritted glass. However, excellent adhesion is achieved for full surface coatings and the scratch-resistance is similar to that of colours applied to glass by the screen printing process. Depending on the build-up of the coating, which in turn depends on the application in question, OKACOLOR can be used as monolithic single glazing, in laminated glazing or insulating glass. Testing of applied colours has been undertaken to demonstrate excellent U-V resistance.

The OKACOLOR product range includes the following:

- **OKACOLOR** Lacquering (monochrome)
- **OKACOLOR Design** Special-effect glass with motif

Combinations of the above variants are possible and sometimes necessary in order to achieve the desired effects. Please observe and follow the OKACOLOR cleaning instructions.

Annealed float, toughened and cast glass can all be used as the glass substrate for application of OKACOLOR. Toughened glass must be used in all external applications to eliminate any risk of thermal stress fracture as a result of increased solar absorption. More detailed information and recommendations will be provided according to project-specific requirements.

Other materials such as Perspex, composite panels, metals, etc., can be printed upon as well if checked and found suitable.

## Technical Data

The thermal transmission (U-value) for OKACOLOR will generally correspond with that for an un-printed insulating glass unit of the same basic configuration, with double glazing able to achieve values as low as 1.0 W/(m<sup>2</sup>K) (0.176 Btu/hr/ft<sup>2</sup>/°R) and triple glazing down to 0.5 W/(m<sup>2</sup>K) (0.09 Btu/hr/ft<sup>2</sup>/°R). Light and solar energy transmission will depend upon the nature of the OKACOLOR application selected, although our technical department will be able to provide data once this has been determined.

U-values refer to European Standard EN 673. Please contact our sales department for values according to ASHRAE conditions.

Legend and related values:

	<b>unit</b>	<b>standard</b>	<b>technical term</b>
<b>U</b>	W/(m <sup>2</sup> K)	DIN EN 673 DIN EN 674	Thermal transmittance, U <sub>g</sub> = U
	%	DIN EN 410	Total degree of energy transmission
<b>T<sub>v</sub></b>	%	DIN EN 410	Light transmission (direct/hemispheric)

## Structure

Single glazing (float glass, prestressed glass):	Coating on #2 as a rule
Laminated glazing:	Coating on #4 as a rule
Insulation glass:	Coating on #2 as a rule Thermal protection layer on #3 (Standard layer configuration in insulation glass)

## Build-up

Maximum dimensions 2050 x 5000 cm, special length on request

## Data communication for OKACOLOR coatings

- Email info@okalux.de (up to 20 MB)
- Data carrier CD-ROM, DVD  
Please only send data copies as we do not store them and cannot therefore accept any liability.
- Data name Please name your folder with your company/project name when communicating the data and add all relevant files, fonts, pictures as well as an order explanation (read me file).
- Control printout We need a control printout and a colour sample (proof) for colour comparison.
- Programmes Photoshop up to CS2  
Please do not supply any Microsoft Office data (e.g.: Word, Excel etc.). These are not suitable!
- File format PSD - CMYK  
EPS - CMYK  
TIF- CMYK  
PDF - CMYK, optimised for printing, with imbedded fonts  
Please do not supply file formats as for example: PNG, GIF, WMF, PICT etc. These are not suitable.
- Fonts Please convert all fonts into vectors!
- Resolutions
- |                     |                        |               |
|---------------------|------------------------|---------------|
| Printing resolution |                        | 400 - 600 dpi |
| Image resolution    | Up to 2 m <sup>2</sup> | 120 - 150 dpi |
|                     | Up to 6 m <sup>2</sup> | 90 dpi        |
|                     | > 6 m <sup>2</sup>     | min. 50 dpi   |
- This information is relevant if your file size corresponds 1:1/exactly to the printing size. With file sizes with a ratio of 1:10 to the printing size, files with a 10-fold resolution must be supplied.
- Pictures Picture files must be print-ready.  
All picture data linked with the file must be supplied.

## Colours

Please supply all colours as CMYK!! Colours in Pantone, HKS, RAL or RGB format do in general not correspond to the original colour after conversion. Please contact us to discuss.

Black: Please supply 4c black: 40c / 40m / 40y / 100k

Please do not use colour profiles attached to picture files.

## Tips

Enlarged processes from Freehand or other vector applications are generally staggered. You can create processes in Photoshop. Possibly use the "Add noise" filter with a low filter Intensity. This creates a more homogenous colour blending and reduces staggering. Do not let the colour blending bleed down to 0%, in order to prevent breaking.