**OKALUX**

*We take architectural glass a step ahead.*

## *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:

- **OKA*COLOR***         Lacquering    (monochrome)
- **OKA*COLOR*** 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.

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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/(m²K) (0.176 Btu/hr/ft²/°R) and triple glazing down to 0.5 W/(m²K) (0.09 Btu/hr/ft²/°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:

| | unit | standard | technical term |
|---|---|---|---|
| U | W/(m²K) | DIN EN 673<br>DIN EN 674 | Thermal transmittance, $U_g = U$ |
| | % | DIN EN 410 | Total degree of energy transmission |
| $T_v$ | % | 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<br>Thermal protection layer on #3<br>(Standard layer configuration in insulation glass) |

## Build-up

Maximum dimensions 2050 x 5000 mm, special length on request

## Data communication for *OKACOLOR* coatings

| | |
|---|---|
| **Email** | info@okalux.de (up to 20 MB) |
| **Data carrier** | CD-ROM, DVD<br>Please only send data copies as we do not store them and cannot therefore accept any liability. |

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| | |
|---|---|
| **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<br>Please do not supply any Microsoft Office data (e.g.: Word, Excel etc.). These are <u>not</u> suitable! |
| **File format** | PSD -     CMYK<br>EPS -     CMYK<br>TIF-     CMYK<br>PDF -     CMYK, optimised for printing, with imbedded fonts<br>Please do not supply file formats as for example: PNG, GIF, WMF, PICT etc. These are <u>not</u> suitable. |
| **Fonts** | Please convert all fonts into vectors! |
| **Resolutions** | Printing resolution 400 - 600 dpi<br>Image resolution  Up to 2 m² 120 - 150 dpi<br>  Up to 6 m² 90 dpi<br>  > 6 m² min. 50 dpi<br>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.<br>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.<br>Black: Please supply 4c black: 40c / 40m / 40y / 100k<br>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. |

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## Other printed matter

**If you do not have the following printer matter, please request it directly from OKALUX or download it from the Internet at www.okalux.com:**

General terms and conditions of business
Product-specific information texts

**As well as these, there are the following customer notes:**

Customer notes on offers
Customer notes on delivery
Customer notes alarm glass
Customer notes screen printing
Customer notes Structural Glazing / Edge deletion
Customer notes on heat-soak test
Customer notes on glazing
Customer notes SIGNAPUR®
Customer notes installation of OKA*FLEX*
Customer notes installation of OKA*PANE*
Customer notes OKA*WOOD* tolerances
Customer notes OKA*CELL* product specification
Cleaning instructions for OKA*LUX* gen.
Cleaning instructions OKA*COLOR*
Guideline for visual quality

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