

## Daylight-Optimising Glass/Light Redirecting Glass **OKALUX**

Buildings that consume lower energy but maximise occupants' comfort levels contribute greatly towards the goal of building sustainable cities and communities. An integral part of doing that is to optimise daylight usage, which means letting more daylight into the building to naturally brighten up interior spaces, while cutting out glare and heat.

OKALUX, newly distributed by SSG, optimises daylight usage by evenly dispersing daylight to far corners of a room, while blocking out unwanted heat and glare. It is also ideal for both vertical and horizontal glazing, which provides ample flexibility for architects looking to maximise its benefits.

This product is highly customisable to individual requirements of solar control, light diffusion, acoustic control and aesthetic design, and it works by enclosing a variety of materials and systems in a double-glazed unit (DGU). The materials and systems fall into three broad categories:

### 1) OKASOLAR - Louvre inserts

For OKASOLAR, louvres which are already customised to obtain the best balance of sun protection and daylighting are inserted into the cavity of a DGU. This system is able to optimise the energy balance of the building by directing daylight selectively into the building, while protecting occupants from excess heat and harmful UV rays.

OKASOLAR can be highly customised to meet different requirements, such as by being partially see-through or customising for privacy. It can also be used in a variety of areas such as the façade of a building, overhead glazing, or its interiors.

### 2) OKALUX & KAPILUX - Capillary inserts

OKALUX & KAPILUX, special capillary inserts which are already customised to diffuse daylight deeply and uniformly into interiors of a building are enclosed in a DGU. This system is



also able to cut out excess glare and heat, with the capillary inserts being able to provide constant thermal insulation by reducing the transfer of heat.

OKALUX & KAPILUX can be highly customised to meet different requirements, such as by being partially transparent for a view, or translucent for privacy. The transmission values of the glass can also be specifically adjusted according to a project's requirements. This system can also be used in a variety of areas such as the façade of a building, overhead glazing, or its interiors.

### 3) OKATECH, OKAWOOD & OKASTONE - Other materials inserts

For more design possibilities, other materials such as metal (OKATECH), wood (OKAWOOD) and stone (OKASTONE) can also be inserted into the cavity of a DGU. Besides looking aesthetically pleasing and giving the glass a vivid textured appearance, these materials also perform various practical functions such as thermal insulation and solar protection.

This system solution can be highly customised to meet different requirements, such as by being partially see-through or customising for privacy. It is also long-lasting, maintenance-free and easy to clean. It can also be used in a variety of areas such as the façade of a building, overhead glazing, or its interiors, providing vibrancy of design.

## PRODUCT FEATURES

### DAYLIGHT OPTIMISATION

OKALUX reduces heat and glare into a building, while also optimising daylight transmission in the process. This allows more light into the building to naturally brighten up interior spaces.

### HEAT INSULATION

The system is able to cut out excess heat with its capillary inserts, which provide constant thermal insulation by reducing the transfer of heat.

### ENERGY CONSERVATION

OKALUX provides natural daylighting & cut out excess heat which allows for decreased use of electricity, thereby reducing electrical demand and bills.

### GLARE CONTROL

The product optimises light diffusion by evenly dispersing daylight to far corners of a room, while blocking out unwanted glare.

### DESIGN VERSATILITY

OKALUX allows flexibility in design possibilities with its variation of different glass types to meet individual performance requirements. The inserts are also highly customisable to individual requirements of solar control, light diffusion, acoustic control and aesthetic design.

### MAINTENANCE SAVINGS

OKALUX is an effective approach to increasing occupant comfort & energy efficiency. As the materials and systems are enclosed in the inter-glass space, it is beyond the reach of dirt and allergens, making it long-lasting, maintenance-free and easy to clean. This in turn leads to savings in maintenance costs.

### ACOUSTIC BARRIER

The layer of non-convective air in between the glass panes helps to cut down on sound transmission.

