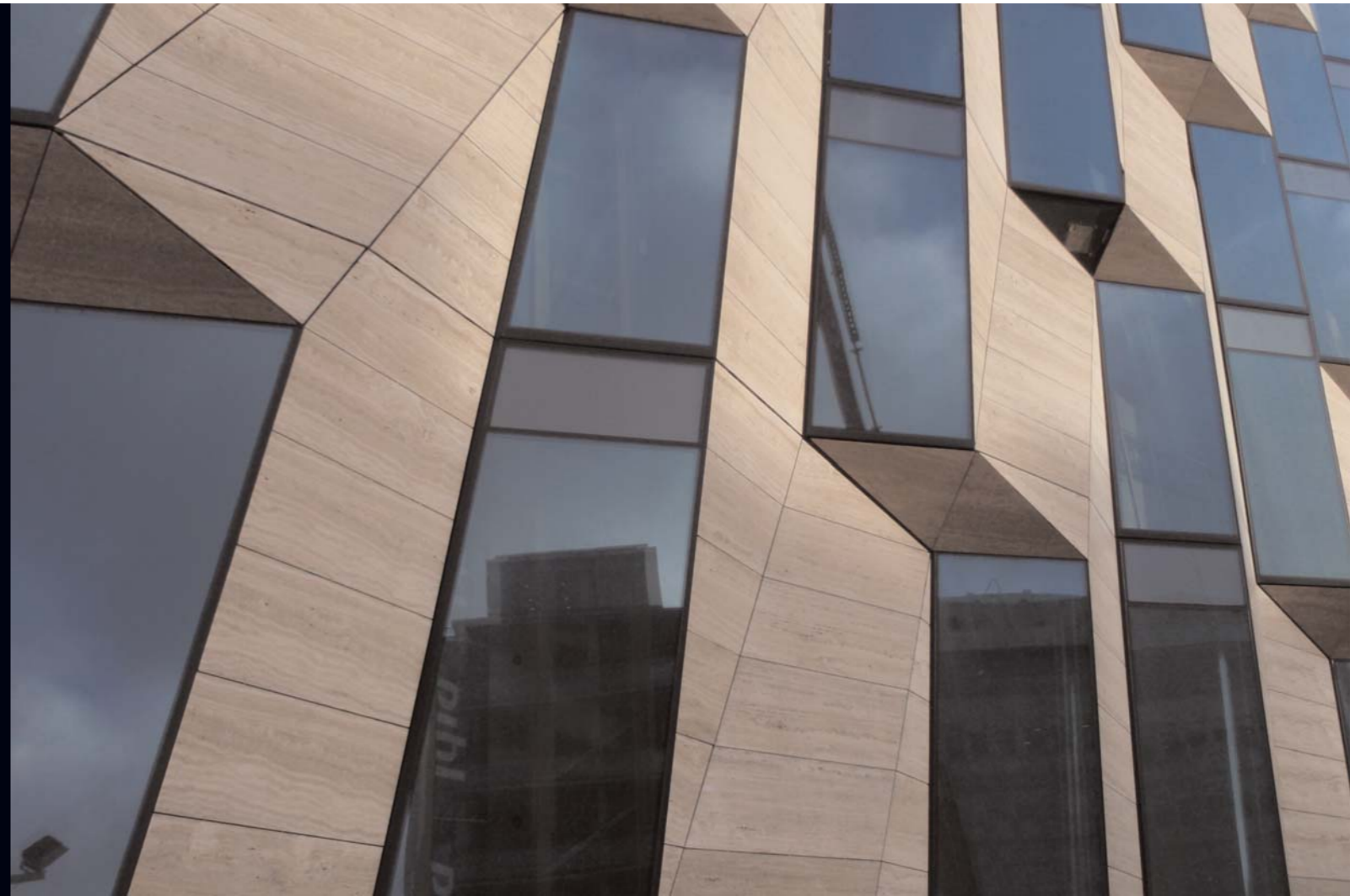


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»OUR GOAL IS TO  
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COME ALIVE«



HORTEN KØBENHAVN DEMNARK

PARTNERS:



REICHHOLD



Skandinaviska Glassystem AB Sjöportsgatan 6 SE-417 64 Göteborg phone +46 (0)31 651 650 www.skandglas.se



# SKANDINAVISKA GLASSYSTEM, DEVELOPING NEW ARCHITECTURAL CLADDING INNOVATION

SKANDINAVISKA GLASSYSTEM (SG) HAS A DESERVED REPUTATION FOR PRODUCING UNIQUE BUILDING FACADES USING PREDOMINANTLY GLASS, STEEL AND ALUMINUM.

In the Spring of 2007 the company was asked to produce the facade for a six storey office block in Copenhagen that would present two entirely different aspects depending on the viewpoint. Viewed from the one side, the building would appear to have facade that was basically a glass wall. Viewed from the opposite side, the facade would appear to be completely finished in marble. The same effect was required for all four sides of the building – a total area of 4,000 m<sup>2</sup> (43,000 ft<sup>2</sup>).

Achieving such an effect involves the use of a complex geometric arrangement. The traditional approach would have been to create a steel latticework on to which the travatin (a type of marble) stone cladding and glazing units would be attached. However, in the case of this building this was simply not feasible in terms of building loads, cost and installation time. A solution was required that would be significantly lighter than the steel latticework, would allow rapid installation and would preserve the architect's original vision. In addition any solution would need to meet the prevailing fire regulations.

## TESTS

Working closely with DIAB, 3XN and Pihl, SG has developed an innovative, modular system that makes extensive use of sandwich composites to support both the glass and marble elements. Divinycell P was chosen because it was able to meet the structural requirements of the application and was able to pass the fire testing that was carried out at SP Fire Technology in accordance with appropriate Danish building regulations.

## JEC INNOVATION AWARD

Already the innovatory nature of this cladding system has been recognized by the JEC organization. At a special ceremony that will be held at the JEC Composites Show in Paris at the end of March 2009, SG and DIAB will be presented with a JEC Innovation Award.

## SANDWICH COMPOSITE BENEFITS

Each module is approximately 4 x 4.5 meters. As the system is significantly lighter than the traditional approach – by a factor of around 4:1 – it is well within the permitted building loads. Further time and cost is saved as the modules can be installed directly to the steel reinforced, concrete floors of

the building virtually as soon as the floors are complete and without the need for additional supporting steel-work.

Other benefits of taking the sandwich approach include the fact that the system offers inherent insulation properties, does not rust or corrode and is basically immune from moisture uptake even if the uninstalled modules are left exposed to the elements on the building site for a prolonged period of time.

## ARCHITECTURAL BENEFITS

The strong composite core can carry all kinds of façade materials such as stone, sheet metal, tiles and wood. You can also use the actual composite as a visible façade using a gel coat. As a new dynamic construction material it opens up a new way of thinking when it comes to free shapes and organic forms.

## SKANDINAVISKA GLASSYSTEM AB

made the façades for: *House of Sweden* in Washington, *Saxo Bank* in Copenhagen, *Glass Façades at Oslo*, *Opera House* and now *Bella Hotel* in Copenhagen.

